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## HELP! NOT US BUT YOURSELF

"The race is not always to the swift nor the battle to the strong."  
True! Because we do not realize the full measure of our swiftness  
or our strength. We need self-knowledge, to help ourselves

EVER since humanity began to aggregate into communities the cry of the weak has been heard, the plea of the helpless to the strong for deliverance. From the hour when the eyes of the infant first open to the light, as it lies, the most helpless of created things, in the arms of its mother, it begins to expect aid from the rest of its race. It finds her ready to supply every want, even to forestall it. Her watchful solicitude ceases only with her life. As the years pass by the child learns that it must fend for itself. Some seem never to learn this lesson, and our most modern system of education certainly fosters the spirit of dependence.

By the time a youth has completed his preliminary and high-school course, his four years in college and four more in a professional school, with a year as hospital interne, he has neared his thirtieth year; and the habit of looking to others for resources has been confirmed by an average lifetime. Under such influences the self-reliant pioneer stock degenerates; the parasitic class that lives on the product of other men's labors multiplies; this becomes the ideal life in the eye of the multitude, and the rare individual who earns his own money becomes an object of supercilious contempt.

A race of cowardly weaklings is bred, men in whom selfishness is ingrained. Sympathy is dead, misfortune is surveyed with indifference, failure with impatience; and when the right is ground into the mire by the heel of the oppressor, priest and Levite pass by on the other side. It's no affair of theirs. That Samaritan is a fool for meddling; he'll get no thanks, only the ill-will of the thieves—and what's the use of making enemies!

Nevertheless, it would be unfair to judge of the nation by this element. The heart of the American is sound; he is honest, and his sympathy is always ready when it is asked by the deserving. Only, the conception of what is deserving has materially changed since the last generation lived, and wrote, and formed our ideals. Even a century ago Byron, who loved Keats, spoke with a certain contempt of the weakness that permitted his life to be "snuffed out by an article." Byron himself was of sterner stuff; a true scion of the stock that on this side of the ocean adopted as its flag the coiled rattlesnake, with the legend:—"Don't tread on me."

Charles Darwin depicted in words the battle for existence, and told the world that the fittest in all nature survives. Herbert Spencer applied the same inexorable law to

human beings, and showed that they were not exempt. The sense of personal responsibility grew more definite and impressive. Gradually the thought and the ideals of men have responded to the new teaching, until now there is plenty of sympathy with misfortune but very little with weakness. To the plea for help comes the rejoinder: "Why did you let yourself get into such a condition?" To the man who grows plaintive over having been "kept down" by others, who rose on a "pull," comes the unbelieving assurance that nobody nowadays could afford to give responsible place to any but the fittest person available. "You say you are a better man? That's easy to say; but why don't you make people see it?"

It's all right. Save your sympathy for those who deserve it. Save your help for those to whom misfortune has come through occurrences no human foresight could have prevented. If failure was one's own fault, stop and judge critically whether it will have the effect of leaving the man better and stronger. Has it revealed a weakness that will again cause failure? Or has it broken his spirit so that he will be unable to lift himself up again? Aid is withheld until one is assured it will be effective. To many persons giving assistance is like pouring money into a rat-hole.

Help? Who asks help? Not I! All I ask is a clear field, and that you should not unfairly or disproportionately help the others. Let us alone to fight it out between ourselves. If with a just cause, a clear conscience, and the forces with which I have been endowed, I can not win in a fair fight, I shall have to accept the inevitable consequence.

But if it turns out on examination that my fight is really yours, that in striking at me my enemies are aiming a deadly blow at you, at your interests and your liberties, then I say—Up! and help yourselves! Every man who is affected by this endeavor to reduce the free and honorable medical profession to a degrading vassalage needs to take his part. I will never believe that the cowards, the willing tools, the debased self-seekers, constitute or represent the body of our pro-

fession. The men who for petty place, or meager pay, or the politician's familiar slap on the back, are ready to do someone's dirty work are *not* representative.

It's *your* fight. Take your place in the lists—and God defend the right.

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No man who has once heartily and wholly laughed can be altogether and irreclaimably depraved.—Carlyle.

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### THE BABY'S THREE NEEDS

When it is considered that the whole after-life of the human being can be tempered for good or ill by management of the first year of existence, it seems impossible to repeat too often the fundamental rules that should govern all those who have the care of infants. One might sum up the needs of babies in three words: fresh air, regularity, quiet. Babies are but little animals, it is true, yet after all they are little animals with a great deal to do for themselves, and they should receive all the assistance possible from those in charge of them, to enable them to perform this work properly.

In the first year of life great changes are going on in the body, and the baby needs all the help possible to meet the demands made upon its tiny system in the way of tissue formation. A baby cannot speak up and tell us that its meals do not seem to set well or that a dissipated evening gives it a disturbed night, so there is nothing for us to do but to watch carefully all the small but unmistakable signs that things are not going well.

Fresh air comes first in the list of requirements, because it is probable that few babies indeed get all that they are entitled to. It has been noticed by a wise physician that babies with pneumonia do best if they are kept in the open air as far as possible, and even tells of nurses clad in fur-lined coats and gloves because the sickroom is kept so cold. But the sick child, who would die in a warm, close room, recovers under these conditions.

As to well babies, never mind as to what month they are born in; wrap them up warmly, shield them from direct draft, but let them breath outside air day and night.

If the weather is really too terrible to face, then wrap the baby up, put him in a south room and open all the windows.

Whatever the baby's diet may be, natural or artificial, it should be administered with unwavering regularity. The tiniest specimen of humanity is an incarnation of artful cunning when its appetite is concerned, and if it finds that bawling results in feeding, it will bawl. But the enviable child is the one whose mother is not disturbed by this fact and who rigidly adheres to times and seasons. Babies should never be excited by too much play, and especially is this true of the evening hours. There is nothing more entrancing than a gasping, gurgling, hysterical baby; but it is a cruel entertainment, for which the frail, tiny nervous system must pay the price.

True bravery is shown by performing, without witness, what one might be capable of doing before the whole world.  
—La Rochefoucauld.

#### SLURS AGAINST THE MEDICAL PROFESSION

We have just noticed in one of the dailies an item concerning the death of Dr. S. L. Lenox, of Springfield, Mo. "He drank a glass of buttermilk, was taken ill shortly after, and to allay the pain in the stomach he took medicines which, according to the intelligence of the reporter, counteracted and produced ptomaine poisoning."

What nonsense! Nevertheless, this is the sort of nonsense that does harm, for to the lay mind it carries the information that medicines taken as remedies are liable to produce fatal results. Every time such an item comes before the eye of the laity, ignorant of matters medical, the impression of the perilous nature of medicines is deepened, and the cause of Christian science and the drugless healers is strengthened.

Does anybody know of any medicine which, taken in connection with a glass of buttermilk, will produce ptomaines? The information has strangely escaped us. Buttermilk itself if decomposed is liable to furnish poisons enough, without the assistance of any medicine. No medicine known

to the medical profession could possibly add to the danger, although there are many remedies which, if given at the time, would go far to counteract it.

The poisonous ptomaine should have been cleared from the stomach and bowels by emetics and cathartics; or antiseptics could have been used to counteract the effect, other eliminants added to aid those acting on the alimentary canal, while the heart and vital functions in general should have been maintained by suitable stimulation until the effects passed over.

The treatment of such cases, at the hands of the medical profession, is simple enough, and is in the vast majority of cases effective. Indeed, there must have been some special cause at work, which is not given, to account for the fatal result occurring in a physician who knew very well how to treat such cases.

Possibly the doctor was a victim of some chronic ailment, as nephritis, and simply hanging on to life by the skin of his teeth. Or again he may have been worked to the verge of exhaustion, sacrificing his rest, days and nights, to give aid to a horde of ungrateful patients, who accepted his services without considering what it cost the doctor, and too frequently used every means in their power to wriggle out of paying his bills. Exhaustion, coupled with financial worry as the result of such treatment, is enough to kill any man; and the mystery to us is how any ordinary physician ever lives through this period, which most of us must pass through before competence and independence is reached. Under such circumstances a comparatively slight dose (infection) of tyrotoxinon is quite sufficient to turn the scale and to extinguish the flickering vital flame.

It is such items at these that win the public away from the physicians. Mostly they are simply thoughtless jests, although jesting over a physician dying at his post is the reverse of amusing. Don't let such jokes pass unanswered. Answer them when they turn up, with a little revelation of the gruesome reality back of the doctor's life, and let them understand that they are jok-

ing with a serious matter. In every way seek to inculcate the sentiment in the community that while the doctor is a public servant it is worth while to support him in every way, morally and financially, not for his own benefit, but for that of the community in which he practises. The more generally such a sentiment is diffused, instead of the jesting which is too commonly applied to the life and actions of the doctor, the better it is for the profession at large and for the public.

If your neighbors see that you respect your profession, they also will respect it, and you as well. If you look on it only as a joke, step aside.

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Stop yer kickin', get a hold  
Of the wheel and turn it;  
You can never handle gold  
'Less you try to earn it.  
Brush the cobwebs from yer eyes,  
Stop yer durn repinin'.  
And you'll no'ice that yer skies  
Allus 'll be shinin'.

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#### QUININE INUNCTIONS

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An interesting article in *The Memphis Medical Monthly* by Dr. Geo. E. Pettey, who is an old acquaintance of the readers of *CLINICAL MEDICINE*, gives some valuable suggestions concerning methods of administering quinine by inunction. Dr. Pettey thinks that the ordinary method, which consists in anointing the patient with a mixture of quinine with lard or vaseline, is bound to fail, because the salts of quinine are not soluble in either of these two vehicles, and it is certain that they have no chemical affinity for an alkaline water solution like the blood. Moreover, crystalline substances cannot be forced through the skin. Lanolin is a better vehicle for quinine than the lard or vaseline, since it is more miscible with the blood than the two former substances; but unfortunately quinine is not soluble in lanolin.

There is, however, one substance which dissolves quinine and is suited to this form of administration, and that is glycerin. Both the hydrochloride and bisulphate of quinine

are perfectly soluble in warm glycerin in the proportion of one part quinine to three parts glycerin, making a 25-percent solution. Dr. Pettey says that glycerin in this mixture has such an affinity for water in the blood that it passes readily through the integument and carries the quinine with it, holding the latter meanwhile in perfect solution. Neither the sulphate nor hydrobromide of quinine is soluble in glycerin, hence these salts should not be used. He says that a patient can be cinchonized as promptly and thoroughly with this glycerole of quinine as by any other method of administration.

There are conditions in which this salt cannot be given with safety or satisfaction by the stomach, rectum or even hypodermically. The method of giving quinine by inunction to children is often peculiarly desirable on account of the bitter taste of this remedy and the difficulty of administering it to the little ones by the mouth, in many instances.

The foregoing suggestion is presented for what it may be worth, in the hope that the readers of *CLINICAL MEDICINE* living in malarial districts will give it a trial and report their results. Keep in mind, however, the importance of the clean alimentary tract. This seems a simple thing, but it is a matter of the utmost importance. Experience teaches. Those living in paludal districts, for instance, know the value of calomel, though they may not always understand the action of this drug or realize the possibilities of "small doses to effect," with properly indicated synergistic medication.

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#### DON'T USE DRUGS—UNLESS YOU KNOW HOW

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Dr. Osler again, not long ago, came before the public, this time with his usual slur at the use of drugs. While people have become accustomed to specialism in medicine, they have not yet grasped the truth that a physician may be eminent in his own department of medical science and know little of the other branches. Let a man rise to the height of this illustrious gentleman, and he is credited with something like omniscience



in all that pertains to the physician's province.

Dr. Osler's reputation was earned by his work in the department of pathology, where he is an acknowledged master. In all that pertains to the study of disease, its causes, nature and course, he is preeminent. But he has never done anything worth mentioning in the line of treatment, and not a solitary fact regarding drugs and their application is credited to him. Nobody seriously considers his works as guides in treating patients. He is a skeptic as to drugs, uses them but little; and far from possessing the skill in their use that comes only from practice, he really knows almost nothing about them. In this he ranks with the surgeons, those who devote themselves to the exclusive application of electricity, hydrotherapy, suggestion, and similar branches of therapeutics, which agree in excluding drugs altogether.

There are many instances where drugs are misused, where other remedies are preferable, and where by using drugs people try to get rid of the obligation of obeying the laws of health. These are things nobody would defend; but between these and the total exclusion of drugs from medical practice is a wide gap.

The argument for the use of drugs is simple: these substances each exert some influence on some part of the human body, increasing or decreasing one or more of the vital functions. In the study of our patients we note certain departures from health, in the shape of corresponding exaltation or depression of functions. The science of using drugs consists in so fitting our remedies to the disease-conditions as exactly to obviate the latter, and by so doing restore that state of physiologic equilibrium which we term health. If this can be better done by the use of a drug, more safely, promptly and pleasantly, why not use the drug? If it can be better done by electricity, then surely we should use electricity. But when the man who is a professional electrician, and uses nothing else, tells us that this agent alone should be used in the treatment of disease, we must recollect that his business interests

run that way, and discount his statements accordingly.

The trouble with the use of drugs has been their poor quality and lack of skill in their application. Great progress has recently been made in these respects, and the time has come when the old uncertainty is a thing of the past. Nowadays, for the first time in the world's history, we can demand of the physician the observance of these simple rules: (1) Have a definite conception of the disorder in function presented by the patient; in plain terms, know what ails him. (2) Know what remedies will most nearly obviate this morbid condition and restore health. (3) Give just enough of the right remedy to do the needed work, and no more. (4) If you cannot do this, do nothing.

Simple as this seems, it is only of late that any real attempt at its accomplishment has been possible. The old drugs were too uncertain in their properties, too liable to variability and decomposition, for any certainties to be based on their use. The practice of medicine was a never-ending repetition of experiments, with each new specimen of each drug, each time it was given. This uncertainty led to the commingling of a number of drugs in a prescription, in the hope that some one of them might possibly make a hit. The effects of opium depended, first, on whether it contained morphine; second, on how much; third, on the quantity of each of the other twenty-five active agencies it contained, some of which aided the action of morphine in some ways and some opposed it in some ways; fourth, on the degree of decomposition the specimen had undergone; and fifth, on the quantity of the alcohol that had evaporated from the tincture, leaving the active parts remaining of smaller bulk. The result depended largely on the luck and good guessing powers of the doctor.

This is but a sample of the uncertainties with which the doctor had to contend. Nowadays he takes from each plant its active constituent, and separates it from the useless and encumbering dirt; and his therapeutics partakes more of scientific precision.

So we say with Osler, "don't use drugs;" but we qualify it with the addition, "unless they are our best remedies, and then use only the right drugs, in the right way."

This attitude of one of the greatest leaders of the medical profession illustrates the extent to which the physician is influenced by the tone of general current opinion. Dr. Osler would indignantly deny that his views are affected by Mrs. Eddy, and yet one must be struck with the harmony in his views and hers. Both denounce the use of drugs, indiscriminately; drugs, good, bad and indifferent. One arouses a popular prejudice, the other endorses it.

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Love, something doing for the other fellow, is the real watchword of human progress, our part in which is the only true success.

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#### CHAPTERS IN THE LESSON OF LIFE

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Our heart goes out in tenderness to the man who has tried and failed. He is not rare. Indeed, he is but one of the nine hundred and ninety-nine to be found in a thousand who put a foot forward into unknown darkness, only to fall.

But though the experience saddens and staggers; though it does not seem to profit him; though it calls out all his faculties to weather the storm created by his efforts to maintain himself during the trial, he is stronger for the trouble, and his profit has been quite as great as of that one who stepped on solid ground. His portion has been experience, that, dearly bought though it may have been, will be capital secure when he tries again. And, too, his experience has been a danger-signal and a kindness to the many who might try as he has tried.

We all have our goals. They seem to be so brilliantly lighted that a straightaway path is beacons for us and we rush headlong into the way marked out, only to realize that our goal recedes, like the end of the mythical rainbow. We find pitfalls in the shadows of the great light; stumbling blocks that must be rolled aside and forks in the road that must be studied carefully. And earnestly we strive to remove all difficulties, often but to find that we have had our labor

for our pains. We sit down to think it over. We brood and tear our hair and make miserable with our misery. But let it not be for long. Life is good, filled to the brim with much that is really worth while. And the hunt is in us, and the hope and the faith, so let us lift our heads and with our purpose clearly defined let us out and for it. To brood is to make brood. To sorrow is to make sorrow. To whine is to disgust. So even though the rainbow ends in a pot of junk let us smile and make smile as we try again.

There would be no such thing as success, if all succeeded; no joy, if all were joyful. These are comparative conditions, and are for us only in such measure as we may be able to take them in. And if we fail, and fail again, we may know the reason if we will. We are inclined to blame others for it; to elicit sympathy by talking of conditions and environments, but deep down in our hearts we know that our own lack of strength to cope with these conditions and environments has brought the Black One to us, and that these rocks and pitfalls on the roadway are but chapters in the lesson of life.

One word more. If things go wrong with you, cut envy from your heart. If you see your neighbors doing as you would like to do, just speed them on. It marks you down and puts you deeper in the hole to nurse a wrath against them.

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#### PODOPHYLLIN, THE PURE AND IMPECCABLE

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John Uri Lloyd says: "With the enlarged demand for this substance the drug became terribly sophisticated and adulterated, through the indifference of some manufacturers, the ignorance of others and the commercial instincts of yet others, fostered by the demands of some physicians and pharmacists for cheapness instead of quality. It was found that alum water increased the yield and brightened the color; also that gamboge could be mixed with the drug, cheapening it to meet these demands for cheap medicines. Consequently the commercial label under the name podophyllin

covered a number of substances sold at prices to suit the purchaser. It seems strange that a drug used in such small doses should be thus cheapened, but the history of this one remedy stands as proof that to the cheap-medicine man nothing is too cheap to withstand further cheapening.

So, so! And now the rainbow-chasers would have us believe that the miracle has been wrought, human nature has changed, the lesson of all past experience has been unlearned, and selfishness is dead. Pharmacy has developed to such a perfection that all we have to do is to prescribe "podophyllin," and no matter where our order is filled, we shall receive exactly the same drug in every respect. All collectors of crude drugs, all stores, all manufacturers are precisely alike in the perfection of their natures and of their work. Even more—good old Dame Nature has mended her ways and now produces podophyllin of exactly the same quality, in every podophyllum plant that grows under all the varying conditions of soil, climatic season, location, etc.

The day may come—it is in full sight—when the products of all manufacturing chemists will be exactly alike—for there will be but one chemist left!

Nobody else will be allowed to furnish drugs.

He may furnish only U. S. P. preparations.

We may prescribe only U. S. P. preparations.

Where will we be at?

Let me mind my own personal work; keep myself pure and zealous and believing; laboring to do God's will in this fruitful vineyard committed to my charge, as my allotted field, until my work be done.

—Thomas Arnold.

## THE THERAPEUTICS OF THE FUTURE

There are now offered to the medical profession more than 20,000 medicinal preparations, simple and compound, dried, fluid and solid, official and non-official! So says Dr. John C. Denny in an article which is published in the July number of *The Massachusetts Medical Journal*. And yet today,

in spite of this enormous number, new synthetics and elegant pharmaceutical preparations are being introduced faster than ever.

As Dr. Denny says, "certain excesses always accompany a forward movement." While it is true that the vast majority of these drugs have passed or will pass into disuse, the very activity of the manufacturing pharmacist is a sign of progress. If, however, we could eliminate the useless and inert drugs, the number would not be so large as to cause us serious embarrassment, and our Pharmacopeia would be a volume of moderate size, facilitating rather than hindering frequent reference to its pages.

The factors which have served to make therapeutics uncertain and unreliable are (1) the contradictory reports as to their value from different clinical observers; (2) the crudeness of the materials from which our medicaments are derived; (3) the widely varying qualities in each particular drug, this leading (4) to inappropriate dosage and uncertain and capricious effects, so that we never know when giving a dose whether the patient will get the full effect of the remedy or only the minimum one.

"But these," continues Dr. Denny, "and all other professional exceptions to materia medica weighed together do not counterbalance one, which is the only valid objection ever alleged or that can be urged by the people against our measures, and it is the extremely offensive character of medicines as we commonly prescribe and dispense them. We must admit this objection to be just and reasonable, inasmuch, as we very well know, our medicaments are too often obnoxious to taste, smell and sight, provoking the quick resentment of the most convivial stomach."

How may we overcome the objections to the present materia medica and therapeutics?

First, the work of the physiologist, the chemist and the bacteriologist will give us more exact knowledge concerning our remedial agents, and fortunately this work is well under way. Therapeutics is in the transition state from an empirical art to a true science.

Second, as Dr. Denny says: "We may shortly expect the disuse of crudities, and the employment of perfect medicines only. Perfect medicines must possess the essential qualities: purity, precise division, accurate dosage in minimum bulk, permanent form, and ready solubility, uniform power and not be repulsive to sight, taste or smell. Such a standard is readily attainable, although we must place the credit of showing us the way to it, where it belongs, to the extremes of nihilism, and highest potencies in therapy.

"We may accept the method of alkaloidal and pure chemicals, or active principles, which offer the best way of administering potent medicine, of uniform effect, and in agreeable form. By this method alone may be overcome popular abhorrence of official crudities, as all these may be exhibited in the form of tasteless pills and even granules, even to little children, who will take them without dislike.

"Of the many decided advantages of active-principle medication may be mentioned that they conform to the standard of perfect medicines, a complete stock of which may be kept by the physician in a space not larger than his obstetrical instrument case. The country physician may carry in his pocket a supply sufficient for his daily round, while the dispensing may be done without labor and the loss of much valuable time. The city practitioner also will find this method greatly to facilitate his business, as from his pocket-case he may dispense the required medicines in even less time than is occupied in writing a prescription with directions. In cases of emergency he is ready to act on the instant, without imperilling life by the delay necessary to formula writing and sending to the pharmacy. He will, besides, prevent substitution, adulteration and unauthorized repetition by others."

The writer adds that from another source we may obtain remedies of great value, and that is from the curative substances developed within the body. Belonging to this class are the antitoxins, vaccines and other similar agents. We undoubtedly may look for great development in this field during the years to come.

The outlook for the future from these two sources is exceedingly bright. Dr. Denny predicts that "future therapeutics will derive the most efficient means of preventing, opposing and neutralizing disease-processes, and will calendar this decade as the best and brightest in the history of therapeia."

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Time was, is past; thou canst not it recall;  
Time is, thou hast; employ the portion small;  
Time future is not, and may never be;  
Time present is the only time for thee.

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#### THAT PRESCRIPTION: WHAT IT COSTS

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You are called to see a patient. You spend perhaps an hour in going carefully over his case, examining his urine, sputum or other secretions, so that you may be in a position to treat him intelligently. Then you give him a prescription. The ingredients are to be found in almost any drugstore and it is something which is easily compounded. Let us say that it costs the patient 75 cents and that it gives him enough relief so that he sends back to the drugstore to have it refilled.

How have you been benefited from the transaction?

From the examination of the patient you have, it is to be presumed, learned something of the nature of the ailment. You can hardly have mastered the case in the single examination, for in the majority of instances this requires close and continued observation, carried over some period of time.

You have—perhaps—received a fee for making the examination, though too often this is not forthcoming until later, often not at all. Its payment may be delayed, because the patient "hasn't money enough to pay both the doctor and the druggist." The druggist does a cash business, so the doctor waits.

You have saved a little time, the amount necessary to select a few granules or tablets, label them and hand them to the patient. That should take possibly five minutes. This time might be devoted to study! It is assumed that you are *very* short of time.

You have saved the expense of putting in a stock of emergency remedies, those which

you are likely to need. The expenditure, though small, may be of considerable moment to you, especially if you are a young man, just entering practice.

What has the transaction cost you?

It is possible that it has cost you the patient, who instead of coming back for your personal attention has gone to the druggist to have his prescription refilled, and securing some relief therefrom assumes it to be a panacea for his ailment and continues to have it refilled indefinitely.

It has cost you other patients. No. 1 has a friend who complains of aches and pains similar to his own—as he remembers them. He has preserved a copy of the prescription and passed it on to No. 2. He in turn has friends—and it's soon public property.

It has cost you intimate personal contact with the patient, and that means that an opportunity to broaden your acquaintance, increase the circle of your friends and add to your professional clientele, has been lost.

It has cost you, perhaps, something in professional reputation. Certainly you can not do so well with a patient whom you never see except when he comes to you under the stress of dire necessity, as with one who comes often, "to have the medicine changed." Furthermore, if he improves—as he should—under your treatment his gratitude will be fixed more upon the doctor who has prescribed for and dispensed to him, with his own hands, than upon the druggist's simples, "something on a shelf", which he thinks did all the work. And if it is an emergency case, how much may depend upon having the right thing at hand and giving it when it is needed most.

It has cost you possibly the comments of a druggist-gossip, happily not so very common now, but not extinct. When, as is too often the case, the drugstore is a lounging place, you are as likely to suffer as anyone else, especially when the druggist has a hypertrophied opinion of his own knowledge of medicines and as to how they should be given.

It has cost you, perhaps, uncertainty of results, for if your prescription goes to an unreliable pharmacy, to a man who places

profit above everything else, your patient will get what the druggist *has* instead of what you intend he should have.

There you have both sides of the case. There are advantages on both sides, of course, but strike a balance, considering all phases of the matter, from the patient's point of view as well as your own, and let us know what your final decision is. You are the doctor! We don't undertake to say whether you shall dispense or prescribe—nor has any other man a right to dictate. The whole question is one for the collection of evidence *which applies to your own case*, and for careful, deliberate judgment.

Be the master of the situation, not a puppet jumping at the pull of anybody's string.

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If you have a word to say,

Say it.

If you have a part to play,

Play it.

If you have a battle to fight,

Fight it.

If you have a letter to write,

Phone it.

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#### OUR FIFTEENTH ANNIVERSARY NUMBER

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Our special January number last year attracted considerable attention. It was (*we* think) the most beautifully printed and illustrated and in every way the most interesting number of a monthly medical paper ever issued. There is egotism for you! But as good as that number was we are now planning to produce one which will be even better for the celebration of our Fifteenth Anniversary, January next.

This number (January, 1909) will be as fine, typographically and artistically, as our printing plant can produce—and our printing plant produces some of the finest printed work issued from American presses. The reading matter will be of the highest possible interest. Among those who will contribute to this number will be:

Dr. C. F. Wahrer, President of the Iowa State Medical Society, who will write on typhoid fever and its treatment.

Dr. Geo. F. Butler, the well-known author of Butler's "Materia Medica and Pharma-



cology," who will present the first of a series of papers on "Little Journeys to the Homes of Great Physicians"—in this number writing about Benjamin Rush.

Dr. G. Frank Lydston, who has prepared for us another of his brilliant iconoclastic articles which is sure to set the whole medical profession thinking.

Dr. Gordon G. Burdick, an article upon "The Physician as a Business Man."

Drs. E. M. Epstein and W. T. Thackeray who are conjointly producing an extended sketch of the life of Dr. Adolph Burggraeve, the founder of dosimetry and the precursor of the great movement for positive (alkaloidal) therapy in this country.

This is but a taste of the many good things which will appear in this number and which we cannot all enumerate here.

Commencing with the January number we shall also introduce some new features, which we think will make the journal more interesting than ever, if that is possible; for if we can believe what the members of the CLINIC "family" have to say about it, as expressed in thousands of warm, approving letters, the journal is about right even now. Our motto has always been "to go forward."

This is just to "give warning" and ask help, for we want suggestions and more live therapeutic matter, not only for the January number but for all of our next volume. How do you like the Post-Graduate Course, for instance? Do you want it continued? How can we improve it? Are we giving too much space to any department—or too little? Please let us know.

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Responsibility and opportunity fall inevitably upon the shoulders of him who can do—and will.

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#### THE TUBERCULOSIS CRUSADE

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Never in the history of medicine has there been so much interest in the study of the Great White Plague and in methods of preventing and curing it as there is right now. For the first time both the profession and the laity are alive to the danger of this pandemic disease, which probably more than any other is a menace to our race.

In spite of the fact that the annual tribute in lives which we pay to this destroyer is greater than that from any other cause and that the economic waste incident to it makes even the losses from war sink into insignificance, there has until recently been a strange apathy toward this problem. But thank God, we are awake at last! Nothing has shown this more clearly than the magnificent International Congress of Tuberculosis recently held in Washington, a congress which was largely attended by medical men from all sections of the civilized world, and which received the endorsement and support of our own National Government and of our strenuous President.

From time to time we hope to present to our readers some of the helpful things brought out in this congress. We can but hint at them now. Throughout all the discussion of the tuberculosis problem, however, the essential point which is made plain everywhere, is the necessity of making an early diagnosis. It is now universally believed by authorities upon this subject that this should be made long before tubercle bacilli are found in the sputum. In order to get the best results from treatment it is imperative that the diagnosis should be made at the very incipency of the disease, and if this is done, if we may believe the statement of Dr. James G. Pettit, president of the Illinois State Medical Society, made in a recent address before the North Shore Branch of the Chicago Medical Society, there is no reason why we should not save ninety percent of our cases.

In making this early diagnosis, resort is now generally had to the tuberculin test. When this was first introduced the subcutaneous method only was employed, and it was believed by many that in its use there was danger of lighting up a disease which otherwise might be quiescent. Since that time two other methods of administering tuberculin have been introduced: first, that of Calmette, which consists in introducing this substance into the eye; and, second, the cutaneous method of von Pirquet. The first of these is now quite largely condemned because the reaction which is set up is

occasionally very severe and there even is danger of destroying the eye.

The method of von Pirquet is possibly the easiest and best and in most cases the most reliable test, and it is entirely free from danger. There is a percentage of error of about 20 percent; in other words, when the von Pirquet reaction occurs the diagnosis of tuberculosis is practically certain; but the reaction may be absent in one case out of five.

The subcutaneous test is, of course, more uniformly reliable, but the constitutional disturbances which attend it should make one a little slow to employ it, and as a matter of fact, it probably should not be used except in the one case in five where the von Pirquet test fails, and where there is *still* some question as to the possibility of the patient suffering from incipient tuberculosis. It is recorded by Dr. Pettit to be positive in 96 percent of cases. The only condition which seems to cause complications and to interfere with the accuracy of the test is syphilis, and this is present in only 4 percent of the cases, according to Dr. Pettit.

Tuberculin when given this way must be treated like any other powerful substance and used with knowledge and caution, just as any physician should use morphine, strychnine or other dangerous drugs. It is not well adapted to private practice and probably should be restricted to institution work.

When the diagnosis has been made sufficiently early the treatment of the disease is comparatively simple. In these cases careful attention to habits, diet and environment probably will prove curative in a majority of instances, but to these measures should be added the intelligent use of properly indicated drugs. The faddists who would restrict the treatment of tuberculosis to so-called hygienic or physical methods are going too far. In this disease, as in every other, the physician should watch his patient closely, and should meet every indication as it arises in a thoughtful, careful, intelligent way. Even when the disease has advanced beyond the incipient stage, when the sputum swarms with tubercle bacilli, even when cavities have formed in the lungs, much can be done, not only to help the con-

dition of the patient but to restore him to health; and sometimes this restoration is apparently perfect.

Don't give up the ship. Fight for these patients and make them fight with you. Make them feel, as they should, that there always is hope—for hope there is. And more hope there will be, for already we can see glimmerings of the new therapeutic day.

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Every task we master adds to our reserve fund of strength and spiritual force. Every task that masters us depletes our spiritual force and decreases our strength of character.  
—Dorothy Quigley.

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### MISSIONARY WORK IN THE MEDICAL PROFESSION

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It's a glad thing to think about: the number of progressive, large-minded doctors who at the beginning of this century have become disgusted with old methods of prescribing and dispensing and so have adopted alkaloidal therapy. It takes courage to explore the unknown, and many of these are true explorers. Of modern therapy they have been taught practically nothing—the professors themselves are either therapeutic nihilists or know nothing of alkaloidal medication beyond quinine, morphine, atropine and strychnine. To the men who have had the courage to depart from the known, to try definite dosage and certain effect rather than trust to indefinite strength and uncertain results, all honor be. Not exactly explorers are they—for the way has been trod before; yet not having been shown the path blazed by the pioneers they are entitled to the praise due the brave. Each graduating class increases the number of good diagnosticians, excellent pathologists, even competent surgeons; but—as therapists—the woods are full of men who know not what to give to aid Nature in effecting the cure so much desired.

The honest, conscientious doctor is glad to explore the land of therapy so neglected in practically every school in this country. He is happy to learn that there is, indeed, "balm in Gilead." He is willing, like the typical Missourian, to be "shown." There-

fore the wonderful advance of active-principle therapeutics.

The "old-school" men may bluster; the "galenical" manufacturer may scold; the hide-bounds may criticise—but the good work goes on. Daily the list of progressionists increases, and mankind is the gainer thereby. The influence of those who believe in exact medication, in certain dosage, in the substitution of pleasant active principles for nauseous draughts of unknown strength must be expected to spread the good work. Let the glad tidings of alkaloidal medication be spread throughout the world; let every advanced therapist be not only an explorer but a missionary as well—let his aim be not only the curing of patients but the broadening of the knowledge of his brethren of the profession.

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Be strong!

It matters not how deep intrenched the wrong;  
How hard the battle goes, the day how long;  
Faint not—fight on.  
Tomorrow comes the song. —M. D. Babcock.

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#### BE RIGHT, THEN STAND FAST

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A great general once said that an army was never defeated until it thought it was beaten. When one side gives up, had it only held on a little longer, the other side would have cried, "enough!" Nothing makes for a man's success like a reputation for persistence. If he is known to be unyielding his adversaries know they will have to give up, sooner or later; while if he has a yellow streak of cowardice in his composition, they never give up because they know he will, when the requisite pressure has been brought to bear upon him.

After all, why should one give way if he knows he is right? The history of human progress is the biography of those brave souls that would not budge from their stand, but rather died than sacrifice one iota of the right. On the other hand, compromises have invariably proven failures. They may have secured present peace, postponing an inevitable conflict,

or have sacrificed a portion of what must have been won had the advocates of the right but stood fast.

"Be sure you are right, then go ahead." Don't add a solitary qualifying phrase, such as "as far as you can," or anything of the sort. As long as a drug habitue says: "I'll do without the drug until I can't stand it any longer," he is beaten, and still dominated by Apollyon. But when he says: "I'll die before I take another dose," he has won his battle, and the baffled fiend gives up the conflict, and a human soul has resumed the mastery over itself. When a woman says to herself that she will resist her wooer as long as she is able she is already won. She has surveyed the proffered kingdom, and is ready to assume her throne when the time suits her.

But there is everything in the first part of Crockett's aphorism. The ability to discern the right, to reason out a question, looking at it in all lights until the truth is evident, must precede the determination, or the latter is mere mulishness. The determined man is the strong tower to which the neighbors resort in time of peril; the obstinate man builds about himself an enclosure, shutting the world out and himself in; and people learn to leave him to the enjoyment of his own company.

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#### STATE BOARD EXAMINATIONS: CHEMISTRY

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A review of the statistics resulting from the examination of candidates by the various state boards shows that the average results were notably low in chemistry. This was especially the case with mature practitioners, those who would naturally be considered the safest men, to whom the lives of citizens could be entrusted.

During our college course we gave the requisite attention to medical chemistry and passed our examinations in it. We graduated and went to work. As problems arose in practice in which chemistry figured we drew on our memory and referred to our textbooks. Result—what chemistry we needed and could use we

retained and developed. The rest we soon forgot.

New and pressing duties monopolized our attention and our energies. We had to win a livelihood among a crowded press of competitors. Suffering, dying human beings demanded our aid and we soon found that every ounce of energy, every bit of knowledge, the utmost exercise of every mental power we possessed, was requisite to enable us to do our duty to our patients. Many a time have we wrung our hands, crying, "Oh, if we only had more brains."

Twenty, thirty years pass by, and we are growing old. We have won the love and confidence of the community. Blessings follow our footsteps from many a grateful heart. But some one of our loved ones has grown pale, and ominous symptoms indicate that the limit of our skill has been reached, and the Destroyer is camping on her trail. Still there is a chance, and under the sunny skies of a favorable climate the vital powers may yet win the fight. Such a climate awaits us—but how are we to earn our needs there, if not by the exercise of that art to which we have given our lives and souls?

Facing the examiners we meet such queries as these: "Give the formula of nitric acid and tell how it is prepared."

Answer: "Formula,  $\text{HO NO}_3$ ; I don't know how it is prepared. I never had occasion to make it, and cannot conceive of any set of conditions that would render it advisable for me to do so. If such were to occur I would get the latest texts and learn the most recent improved methods."

"Wrong—formula  $\text{HNO}_3$ ."

"Give the meaning of the words monad (univalent), diad, triad, valence, quantivalence, and state the valence of (CN), (OH), ( $\text{NO}_2$ ), ( $\text{CO}_2$ ), (HC)."

"How is a clinical thermometer made and graded?"

"Define empiric, molecular, rational and graphic formulas."

"Give the graphic formula of sulphuric acid, representing S as a diad, also as a hexad."

"By what means are anions and cations designated?"

"Complete the following equation and give the name of each resulting compound:  $\text{C}_2\text{H}_5\text{OH} + \text{C}_2\text{H}_5 - \text{H}_2\text{HSO}_4 = ?$ "

"What is methane? Give its formula, chemic importance and method of manufacture."

"How would you proceed to detect arsenic in a case of suspected poisoning?"

To the last question the candidate replies: "When I graduated I could give Marsh's and other tests. But then and now, with a life depending on the result, I should not trust my memory but should consider myself criminally negligent were I not to take the textbook and follow every direction, constantly referring to the text. Moreover, if there were a competent chemist within reach it would be my duty to put this work on him, lest through my inexperience a fatal error might be made. As to the other questions, they relate to matters that have never arisen in my practice and never will. They treat of a new chemistry developed since I studied, and in which I am too remotely interested to justify me in devoting my time and attention to them. When, as is always the case, I have patients hovering between life and death, I dare not take up my time studying the manufacture of sulphuric acid and the production of methane. The recent graduate should know these things; the old practitioner who does has violated his obligations as a physician and neglected his duty to his patients to waste time on matters that do not come within his sphere."

And so our friend gets a zero in chemistry and is not allowed to practise legally in that state—unless he turns quack, for the bars, strangely enough, seem to be down to all but real doctors.

Moral: If you wish to change your location, get a modern textbook on chemistry and a laboratory outfit and take time to read yourself familiar with the new chemistry.

Haven't time or means?

Then stay at home and let the wife die.

[ Or, agitate for a law limiting the examinations in chemistry to points on which a busy practitioner can legitimately be expected to be posted.

It is not always the most active people to whom we owe the most. There are lives which by their very serenity, their calm strength of character, instill in us the deepest calm and courage.

#### THAT CHINESE SPECIFIC FOR THE OPIUM HABIT

In CLINICAL MEDICINE for August, 1907, we published a brief editorial notice regarding an alleged newly discovered specific for the cure of the opium habit. It was said that in the district of Kuala Lumpur, China, 14,000 people had been cured of the opium habit by means of this drug and Chinese societies had been organized to extend its use, as it was believed to be the long-sought means of eradicating this ulcer that corroded so deeply into oriental society.

This remedy, we learn from *The British Journal of Inebriety*, was first tried late in 1906. The story goes that a party of Chinese woodcutters working in a jungle near Seremban ran out of tea, and to fill its place commenced to use the leaves of a jungle climber, making an infusion of the leaves in the ordinary way. Opium "dross" was mixed with it, and the men continued to drink this mixture for a week or more in place of tea. At the end of this time it was found that all desire for opium smoking had been lost.

This plant has now been identified as *Combretum sondaicum*, belonging to the natural order Combretaceæ. It is a woody climber, growing abundantly on the plains near Kuala Lumpur. The leaves have a faintly bitter and slightly acid taste. An examination of this drug has been made by Harrison, but his results are largely of a negative character. No alkaloid was found; there was a trace of glucoside, indications of two resins, and a quantity of tannin. A chemical examination does not seem to reveal any reason for the extraordinary curative effects which are asserted to follow its use.

In our editorial a year ago we suggested that possibly the announcement of this wonderful discovery was a promise of proprietary interests yet to be developed. We now learn that a firm of pharmaceutical chemists in England is preparing to make a preparation of this drug, and that it will eventually be put on the market. Whether or not it has real therapeutic value as a cure for the opium habit remains to be determined.

For the benefit of those who have not followed the newspapers closely it may be added that a sister of Mrs. Howard Gould—the one who married a Chinaman and is doing missionary work among the Chinese colony in San Francisco—has recently solicited financial assistance from the wealthy ladies of New York to enable her to float what she claims to be her discovery of a positive cure for the opium habit.

#### DRUGS WHICH RAISE THE BODY HEAT

In *Merck's Archives* J. M. French speaks of the drugs which raise the temperature of the human body. He finds only four drugs which do this, namely, strychnine, caffeine, atropine and cactin. Of the latter he says that he was treating an Italian for pneumonia. At the time of the crisis the temperature fell a little more than 9 degrees in four days, from 105° to below 96°F. He began giving atropine, 1-500 grain every two to four hours, raising the temperature to 97.3°F. in two days. Not being satisfied with the atropine he stopped it, and the next day the temperature fell to 96.2°F. He then commenced giving cactin, 1-67 grain every two to four hours. This dose he now considers too small, but even so the effects are quite noticeable, the temperature the next day being 97.8°, and on the following 97.2°F, which figure it nearly touched for the next two days and then gradually approached the normal. He concludes as follows: "I believe that cactin may well be used for restoring a subnormal temperature and trust that others will undertake its use, in order that the question may be settled beyond dispute.





## ACIDOSIS AND OTHER TOXIC CONDITIONS

How acidosis, indicanuria and various internal and external secretions affect the alveolar processes and the teeth, and their effect upon the general health. Reprinted from the Dental Cosmos

By EUGENE S. TALBOT, M. S., D. D. S., M. D., LL. D.

Secretary of the Section of Stomatology, American Medical Association

RESEARCH work upon diseases of the mouth, jaws and teeth from a local viewpoint has only partially solved the problems. Miller demonstrated that lactic acid ferment is the immediate local cause of tooth-decay, but he did not consider the underlying factors, namely, the constitutional causes. The same is true of all other diseases, such as irregularities of the teeth, interstitial gingivitis, erosion and abrasion, sensitive dentin, diseases of the dental pulp, etc., because the fact was ignored that a constitutional element enters into all the pathology of these structures.

Advancing from the lowest vertebrate (the sea-squirt) through the different forms of life, from fish to reptile and from bird to mammal, including human embryogeny, the various phenomena encountered in the study of the pathology of the head, face, jaws and teeth can be accounted for.

### *Studies of the Pulp of Teeth*

In my studies of the pulp I demonstrated that scarcely one could be found without disease. Inflammation, abscesses, nerve-end degeneration, thrombosis, dilated vessels, arteriosclerosis, endarteritis obliterans, pulpstones, calcareous deposit, fatty degeneration,

hyaline degeneration, fibrosis, and other diseases were found, sometimes followed by spontaneous death of the pulp. Discoloration of the teeth takes place with man's advance in years, oftentimes very quickly in disease; and under certain conditions, also softening of tooth-structure and death of the fibrillæ. Decay of the teeth at the cervical margin is very serious in certain constitutional states, as well as softening or discoloration, or both, of dentin under moisture-tight fillings, while sensitive dentin is very troublesome at times. Teeth grow harder as age advances, but when pathologic changes in the internal secretions occur, the teeth gradually grow softer. I also demonstrated that the pulp and the alveolar process are doubly transitory structures, therefore more liable to disease and the first to be involved in constitutional disorders. In pulp-evolution the tissue is healthiest and at its best when it begins to form dentin. As the dentin is formed the pulp degenerates, and, like the covering of the chrysalis, after it has performed its mission in life it becomes useless. The pulp, then, as well as the alveolar process is an easy prey for disease.

Many theories have been advanced for these various lesions, and oftentimes one

theory which seems tenable in a given case must be discarded and another must be proposed for the same condition in other mouths. Again, a cause advanced for one lesion is seldom satisfactory for other lesions even in the same mouth.

A scientific law based on a given hypothesis and to be accepted as correct must not only explain all the facts but must exclude all other explanations. Working upon such an hypothesis, it is my intention to present a theory that may be applied to all the lesions previously mentioned. In my paper on "Acid Autointoxication and Systemic Diseases the Cause of Erosion and Abrasion" I demonstrated that under certain conditions of the system there is an abundance of indican, excessive urinary acidity, and excessive acidity of the stomach.

#### *What Are the Causes of Acidosis?*

The causes bringing about acidosis are: excessive eating, and drinking of stimulants; all forms of nerve lesions, producing nervous dyspepsia; fruits, acids of all kinds, diseased and tired eliminating organs, and a lowered vitality. Many cases have also been recorded where grief, mental worry, nervous breakdown from overwork, neurasthenia, parietic dementia, tabes, ataxia, lesions of the heart, artery and kidney, are associated with rapid decay of the teeth, with interstitial gingivitis, pulp-degeneration, softening of tooth-structure, decay of the cervical margin, sensitive dentin, and with a red, swollen and fissured tongue. In these conditions there is always a marked interstitial gingivitis, occasionally pyorrhea alveolaris, while in disease, and especially in lues, rapid softening, discoloration and destruction of tooth-structure take place.

A marked illustration of this condition is found in the case of a forty-three-year-old man, weighing 250 pounds, who had lues for five years. While the deep-seated glands of the groin alone were involved, and a slight rash on the arms and back was present, supposed to be due to poisoning from a colored shirt which the patient had worn three years previously, nothing of any consequence was noticeable except a

destruction of the alveolar process, beginning at the third molar on both sides of the upper jaw. The patient had well-developed jaws and teeth; no cavities were present. The teeth occluded squarely and were very much worn. It was a marked case of erosion. The teeth were discolored. Interstitial gingivitis had caused destruction of the alveolar process to the extent that two molars on the right side and one on the left were lost. The other molars were beginning to loosen. The effects of the internal secretions were especially demonstrable upon the alveolar process and teeth. This patient's case baffled the skill of five physicians, and he had received no specific treatment. The degree of urinary acidity was 70.

#### *Acidosis and its Significance*

Continued acidosis, intestinal fermentation causing indicanuria, heart and artery changes as well as kidney lesions produce autointoxication. In acidosis, intestinal fermentation, and autointoxication there is a deficiency of alkalinity of the blood. In all diseases of faulty metabolism of the system, in pregnancy, etc., there is nearly always an abnormal degree of urinary acidity. The degree varies, not with age, but with the severity of the systemic changes. I have never tested the urine of so-called acid babies; but in children of four years of age suffering with bronchitis I have found the degree of urinary acidity to be as high as 108. In a fifty-five-year-old woman suffering with severe rectal pain the degree of urinary acidity was 114. Luetics have the highest degree of urinary acidity, varying from 64 to 146. It is more often over than under 100 degrees.

Acidosis frequently is a family characteristic, hence it constitutes the reason why certain diseases like interstitial gingivitis, decay of the teeth, erosion, abrasion, tooth-discoloration, sensitive dentin, pulp-diseases, pulp-destruction, tooth-softening, gout, rheumatism, arteriosclerosis, kidney lesions, various forms of neurasthenia, etc., are associated with one another, and are supposed to be inherited.

Indicanuria is a manifestation of a blue coloring substance in the urine. It is derived from indol, which forms indican. It is supposed to be due to three sources; first, to intestinal fermentation and putrefaction of nitrogenous substances; second, to suppuration in some part of the body; and third, to the formation of indol in the cells of the body-tissues. The fact that indican is found in the urine is a sufficient indication that this poison has circulated in the blood throughout the entire system and has been returned to the kidneys to be expelled. I have demonstrated many times that indicanuria and neurasthenia are in some way related. Reducing the intestinal fermentation and putrefaction by the use of intestinal antiseptics, the neurasthenic condition of the patient is often relieved. The toxic effect of acidosis and indican upon local tissues, especially upon terminal and transitory organs, is very marked. Their injurious effects consist of irritation in the blood-vessels. The salivary glands, the mucous glands, the alveolar process, and the dental pulp are the first structures to become involved.

#### *Poisoning Due to Indicanuria*

Indicanuria is one of the great sources of autointoxication. The toxins of indican permeate all the structures of the body, being carried by the blood circulation. While acidosis and indicanuria may go hand in hand, the quantity of indican depends to a certain extent upon the acidosis relative to the amount formed in the intestines. Thus, upon reducing a high degree of urinary acidity to normal or below, the indican will be increased, owing to the abnormal bacterial activity in producing putrefaction. These germs seem to thrive better in alkaline than in acid media.

An accumulation of indican in the organism will often cause febrile disturbances, lassitude and gastrointestinal irritation—depending, of course, upon the severity of the attack. The effect of indican is not unlike that of poisonous drugs such as mercury, lead, phosphorus, bromine, quinine,

etc., which produce poisonous symptoms in some individuals. In others there are apparently no ill effects. It must, therefore, not be overlooked that in all persons with persistent indicanuria the poison is continuously absorbed from the intestines into the circulation for months and years, and that in many persons it will not manifest itself until the periods of stress at forty-five and again at sixty years of age. Metchnikoff, in considering the phenomena of old age, concludes that autointoxication due to intestinal putrefaction is one of the most important causes of premature senility, in that it causes arteriosclerosis. The accumulation of these toxins in terminal organs, such as the pulp and alveolar process, is as disastrous as the accumulation of any of the poisonous drugs. Arteriosclerosis is one of the common diseases found in the alveolar process and in the pulp, which is a positive proof of its systemic origin.

#### *My Own Research Work*

The research work on uranalysis in cases in which pathologic conditions of the mouth were present was begun in March 1901, and has been continued to the present time. During that time 287 uranalyses were made. All these cases showed acid mucus; in some, acid saliva and interstitial gingivitis; in many, erosion and abrasion was present. All of these patients, and some who did not have erosion and abrasion, possessed soft teeth. In many cases the cervical margins of the teeth were sensitive. Those in which interstitial gingivitis had progressed so far that the teeth were removed and the pulp was examined were found to be pathologic.

The first 50 cases were reported in my article on "Interstitial Gingivitis due to Autointoxication as Indicated by the Urine and Blood-pressure Diagnosis;" 129 cases were reported in my article on "Acid Intoxication, or Acidosis, a Factor in Disease," and on the last 108 cases I have now to report:

The degree of acidity showed in three cases 10 degrees, two 11, one 13, one 14,

two 15, four 16, four 17, two 18, three 20, three 21, five 23, three 24, five 25, one 26, one 27, one 28, four 30, two 31, two 32, three 34, two 35, three 37, seven 40, one 41, one 46, two 48, one 49, three 50, one 51, one 52, two 53, one 55, one 56, two 58, one 59, one 60, three 62, two 63, one 64, one 66, two 70, one 74, four 75, one 76, one 78, one 79, one 80, one 83, one 84, one 100, one 104, one 105, one 108, one 110, one 113; two alkaline. Indican was present in 53, a trace of indican in 18, none in 36, and no observation was taken in 21. The normal acidity is 30 to 40.

For a number of years I have made observations, and I have reported cases of interstitial gingivitis, erosion, abrasion, discoloration, and softening of tooth-structure among tabetics and parietic dements. Urinalysis was made in thirty-five tabetics and twenty-five parietic dements. All the parietic dements showed urinary acidity, while only four tabetics were alkaline. The alkalinity was due to cystitis. All showed indican in a greater or smaller degree. The fact that the urine was normal at the time of the examination is no proof that it was not acid and did not contain indican four weeks before, or that it would not be excessively acid with an abundance of indican four weeks later. I have demonstrated this variation many times. The condition of the excretions of the body depends upon the habits and the mode of living of each individual, and these change constantly. A long-continued acidity of the urine and an accumulation of indican in the system soon produce marked impressions upon the jaws and teeth.

#### *How Degree of Acidity Was Determined*

The method of obtaining the degree of acidity of the urine, as given by Neubauer and Vogel, is very simple. The instruments necessary are one 50-ccm. burette, one wooden stand, one Barnes' dropping-bottle, one 10-ccm. graduate, and one small glass. Place the burette in the wooden stand in an upright position; fill the tube with the solution (decinormal sodium hydrate) to exactly 0. The degree of acidity

is obtained by taking 10 ccm. of the urine specimen measured in the graduate glass, and pouring it into the small glass; add four drops of phenolphthalein; then add drop by drop NaOH (decinormal sodium hydrate) until a slight pinkish color is produced. Having noted on paper the number of ccm. of the NaOH in the burette before and after the pink color is obtained, the number of ccm. displaced multiplied by 10 (in order to find the number of ccm. of NaOH necessary to reduce 100 ccm. of urine) equals the degree of acidity. Each step in this operation must be carefully performed, and each instrument must be kept perfectly clean, in order to get good results.

The normal degree of acidity of the urine is from 30 to 40. When the degree is below 30 (the difference between the degree indicated and 30 shows the degree retained in the system), it indicates either renal insufficiency or excessive suboxidation, producing renal strain. In cases in which the degree of acidity exceeds 40 there is excessively imperfect oxidation, which, irrespective of the types of acid, underlies, as is now almost generally recognized, severe constitutional stress allied to that of diabetic acidosis.

#### *Quantity of Urine and Acidity*

The question arises, Does the quantity of urine passed in twenty-four hours influence the degree of acidity? Thus, if more than forty-eight ounces, i.e., the normal amount, were passed, the degree of acidity would be low as compared with less than forty-eight ounces. There is a relationship between the polyuria produced by nerve- and other strains in seemingly normal persons. This occurs in students taking examinations, and in certain hysterics under excitement. The eliminatory functions of the kidneys are interfered with, but the watery excretory powers are increased. There is real, albeit not nosologic, renal insufficiency, producing a condition temporarily analogous to diabetes insipidus. The state is not normal, but is not necessarily nosologic.

On application of the phenolphthalein, if the urine specimen turns pink, it is alkaline, therefore no degree of acidity can be obtained.

To obtain the amount of indican in a given specimen, take 5 ccm. of urine; pour it into a test-tube; add 5 ccm. of hydrochloric acid, and shake thoroughly. Let the mixture stand for a few moments. Add 10 drops of hydrogen dioxide, shake thoroughly, and let it stand for a few moments; then add 1 ccm. of chloroform, shake thoroughly again, and let it stand. If indican be present, chloroform will absorb it, turn blue, and settle to the bottom of the tube; if there be no indican, the chloroform will remain colorless.

The toxins in the blood which are the result of acidosis and indicanuria are carried to all structures of the body. All structures of the body, however, are not alike. Some, especially those that are active and are needed for the welfare of the body, under the law of economy of growth or use and disuse of structures, can take care of the toxins and return the blood to be cleansed of its impurities. Other structures which are of little use, and are called terminal organs and transitory structures, such as the dental pulp and the alveolar process, cannot dispose of the blood so readily. The result of this is an accumulation of toxins, and disease follows. Other terminal organs that can stand the strain a little better, but are sure to succumb later if the toxins continue to be present in the blood, are the kidneys, the heart, the liver, the eye and the brain.

#### *The Prophylactic Value of these Studies*

One object of this paper is to bring before the profession the fact that early symptoms of systemic disorders may be recognized, and prophylactic means may be adopted to ward off future trouble. Heart-pressure, endarteritis obliterans, arteriosclerosis and dilated arteries are easily demonstrable in the pulp and in the alveolar process by early symptoms of acidosis and indicanuria. It will be seen, then, that acidosis and indicanuria are factors which cannot be overlooked.

To ascertain the blood-pressure in those of my patients that suffer with interstitial gingivitis, I used Cook's modification of the Riva Rocci sphygmomanometer, this instrument being exceedingly simple and best adapted for my convenience. The armlet used was sold with the instrument and consists of a rubber bag  $4\frac{1}{2}$  by 40 cm. The patients ranged from twenty-seven to sixty-seven years of age. With this instrument the normal adult female arterial blood-pressure is 115 to 125 mm. Hg.; adult male, 125 to 135 mm. Hg.

Among twenty-six females, there were three who ranged between 115 mm. Hg. and 125 mm. Hg., and were therefore normal. Three ranged below 115 mm. Hg., and twenty from 135 mm. Hg. to 180 mm. Hg.

Among twenty-four males, there were eight who ranged between 125 mm. Hg. and 135 mm. Hg., and were therefore normal. Three ranged below 125 mm. Hg., and thirteen from 135 mm. Hg. to 160 mm. Hg.

When we consider that thirteen of these patients were under forty-five years of age, the high blood-pressure is remarkable.

It is needless for me to enter into a discussion of interstitial gingivitis at this time, since I have covered this subject in my last three or four papers. I will say, however, in regard to this disease, that the toxins in the blood irritate the tortuous blood-vessels running through the alveolar process, and because it is an end-organ and a transitory structure, a low form of inflammation is set up, and absorption takes place. When there are an excessive urinary acidity and indican, the mucous glands of mouth and vagina and the sweat-glands of the skin secrete an acid fluid. If the urinary acidity and indican persist, the salivary glands will secrete an acid saliva. The blood has a diminished alkalinity. The more persistent and prolonged the urinary acidity, the less the alkalinity of the blood and the greater the acidity of the mucus, saliva and sweat.

#### *Tooth-pulp Changes Due to Toxemia*

Before proceeding farther with our pathologic research, let us consider briefly the



changes which the tooth and the tooth-pulp undergo on account of the toxins in the blood. The pulp is a degenerate organ. It has degenerated in its evolution from the lower vertebrates. It also degenerates in forming dentin. It is at its best when it begins to form dentin. The blood enters the pulp through a small opening by way of a small artery and escapes by a small vein. It is therefore, like the alveolar process, not only an end-organ, but markedly transitory. It is virtually a ductless gland.

What are the ductless glands? All ductless glands are secretory. The pulp, in all probability, like other organs has internal secretions. Other ductless glands are the liver, which has two functions, first that of excreting or destroying poison; second, that of blood-making. The poison-destroyer has a duct, the other has not. The testes and ovaries each have two functions, first, a reproductive one; second, a secretory one for the nourishment of the body. To use a better illustration, the bone-marrow, which roughly corresponds to the pulp, has a blood-making function and producing bone-cells, but has no duct; its product returns to the circulation. All are familiar with the action of the other ductless glands. The pulp is a most marked example of an end-organ without a duct, but its product, under the general law of ductless organs, must pass into the general circulation by absorption in the blood-vessels. The pulp secretes or excretes toxins from the blood, which pass through the fibrillæ and destroy them, soften the tooth partially or the dentin and enamel entirely, and destroy the cement-substance between the enamel-rods.

In some cases of systemic changes due to disease and acidosis, teeth will suddenly discolor and pulps die without decay or any external action. Not infrequently pulps will die one after the other in teeth in one mouth without apparent cause. In other teeth, pulps die no matter how well or how carefully the teeth may be filled. Changes in color and density, and pulp-disease frequently occur in people over thirty-five years of age, without decay. Acidosis and

indicanuria are more frequently observed after that period, partly due to the tired-out eliminating organs.

#### *Are Toxins Excreted by the Pulp?*

The question arises, How do we know that toxins are excreted by the pulp? I have demonstrated this in four cases. In the past ten years I have cracked open more than six thousand teeth. The pulps were tested for acid by litmus placed on paper and upon plaster disks in the manner described by me in other papers. While the litmus test is crude and uncertain, I have had a number of good results. The plaster-of-paris method is more successful. In all cases the specimen was examined by a magnifying glass. Not a large percentage of cases was discovered—and it could hardly be expected. It would be very difficult to obtain many teeth from favorable people with acidosis. The fact, however, that such conditions are present, and that acid pulps are found by such crude methods, is sufficient to account for the changes taking place in pulp fibrillæ, dentin and enamel.

Sajous says ("The Internal Secretions"): "The axis-cylinders of all nerves and the dendrites of neurons are found to contain a fluid identical with the blood-plasma in its reaction to staining fluids. Even the neuroglia fibrils asserted their identity as plasma-capillaries, the neuroglia feltwork of two substances of the brain and cord representing the intrinsic circulation of these organs. The muscular contractile structures, the various glandular organs, including the liver, pancreas, and spleen, the gastric and intestinal glandular elements, etc., were all found to be so disposed as to allow the free circulation of this oxidizing plasma, the red corpuscles passing on in the larger channels."

It will be seen, therefore, that toxins and acid conditions may circulate freely from the pulp through the tooth-substance by way of the fibrillæ and decalcify tooth-structure. The decalcification may be only slight and the fibrillæ may lose only part of their sensitiveness. The pulp may par-

tially lose its sensitiveness on account of nerve degeneration. This tissue is frequently removed without pain and without the application of drugs. On the other hand, decalcification of the teeth has been observed by all dentists to the extent that the calcium salts have been entirely removed in a few months. The remaining substance could be scraped off like horn. Again, it has been observed that the crowns of teeth have decalcified so that nothing remained except the clean roots protruding through the gums.

#### *Conditions which Favor Decalcification*

The degree of decalcification and the rapidity with which it is performed will depend entirely upon the cause of the toxins in the blood and upon the severity of the disease which produces them. The simpler forms of toxins and changes in structure in the mouth are those in which the individual gradually grows old without disease. The eliminating organs become tired, the result of which is that a certain amount of toxins is retained in the blood. Excesses in eating, or drinking stimulants, or both, are fruitful sources of acidosis and indicanuria. If the kidneys do not become involved, the individual will survive until the senile period of stress—at about sixty—when heart failure or apoplexy results, owing to decay of the arteries. All the diseases of the jaws and teeth will have been experienced. Frequently the kidney, liver and other organs of the body become involved during this flight from youth to middle age. The most rapid degree of decalcification of the teeth takes place in lues, where the highest degree of urinary acidity and the largest quantity of indican are to be found. In such cases I have seen comparatively healthy teeth in young men decalcify, with cavities in nearly all the teeth; the destruction of the alveolar process takes place in six to nine months' time. The extent of decalcification, of destruction of the fibrillae, and of pulp lesions, depends upon the severity of the toxins in the blood. The teeth, having lost their power of resistance, may easily take on decay, erosion

and abrasion. The destruction of the fibrillae already has caused discoloration.

#### *External Secretions and the Teeth*

Having shown the effects of internal secretions due to acidosis and indicanuria upon the structures of the jaws and teeth, we will now study the effects of external secretions, due to the same causes, upon the teeth. We showed that the degree of acidity of the mucus and saliva, which are external secretions, depends upon the degree of toxins or upon the diminished alkalinity of the blood. Friction of a foreign substance, like a tooth-brush, of the lower teeth against the upper, of the lips or tongue, will cause wearing away of the softened tooth-structure without the aid of acids. The latter, however, greatly assist in this operation. The acid mucus collects upon the teeth, and, with the aid of friction, quickly destroys tooth-structure. When the saliva becomes acid, teeth which have lost their resistance easily become affected by erosion and abrasion. Tooth-softening permits any or all of the acids in the mouth, including lactic acid, to act upon tooth-structure and to cause disintegration. The acid external secretions, dripping upon the surface of the softened teeth, will cause disintegration without friction. A further discussion on erosion and abrasion will be taken up in my next paper.

The subject of tooth-decay is such a vast one that only a few obscure points will be considered in this paper. At the meeting of the International Dental Congress at St. Louis I asked Dr. Miller to explain this case: A girl of thirteen years had her teeth put in thorough order before going to a preparatory school. Upon her return at the end of the school-year there was decay about the fillings, and also many new cavities had developed. Dr. Miller's reply was that the young lady had been eating chocolates. This hardly explains the condition. If she had been eating chocolates—which she had not—she might have brushed her teeth after eating them and thus have removed the local condition.

Experience has taught me that close confinement in school, hard study, monotony in diet, ambition to excel, homesickness, want of fresh air, of sunshine and of exercise, worry and nerve-strain from examinations produce acidosis and indicanuria, which in turn cause changes in the internal and external secretions which reduce the resisting power of the teeth, thus causing their rapid decay. Every dentist has had such an experience. Teeth decay rapidly during pregnancy as well as in disease. Teeth frequently decay very rapidly in senile periods, when they are supposed to be the hardest and when little or no decay had occurred previously. Teeth have decayed and the enamel has become very brittle while an abscess was forming and discharging from the pelvic cavity. Teeth frequently decay rapidly and the alveolar process becomes absorbed in patients suffering from grief, worry and overwork. I have recorded a number of such cases.

#### *Decay of Teeth, Ancient and Modern*

There is a vast difference between the processes of decay of the teeth as observed in the skulls of the most ancient races, such as the lake-dwellers, the cliff-dwellers, the mound-builders, and those of the teeth which you and I are treating today. There is a vast difference between the decay of the teeth of the negro races in the North and similar pathologic processes in those who trace their ancestry in this country back for 250 years. There is a great difference between the decay of the teeth of those living in the Northwest and the decay occurring in the inhabitants of England, Ireland, Scotland, Wales, and here in New England and its vicinity. These differences are due to evolution and degeneration. Environment is next in importance, including degeneration. These changes in tooth-structure due to systemic changes must be studied and understood before we undertake to apply local theories.

You all have seen decay of the cervical margin take place rapidly in the mouths of some of your patients who scarcely ever masticated their food, as well as decay in

the mouths of sick, anemic and poorly nourished children. The results of this are toxins in the blood, causing the mucous and salivary glands to discharge acid secretions which in turn unite with the decomposing food accumulating about the necks of the teeth. The teeth have lost their resistance from internal toxins acting through the pulp. Sensitive dentin can also be accounted for in a majority of cases as being due to an acid condition of the mucus and the saliva influenced by systemic changes.

Dr. Elliott P. Joslin of the Harvard Medical School in his researches and writings has added many data to the subject of acidosis, especially in relation to diseases of such end-organs as the kidney, liver, brain, etc. His studies have been conducted upon animals and human beings in diseases such as diabetes, coma, etc. He says, "The reaction of the blood in diabetes confirms the view of an acid poison." The worst forms of tooth-softening, discoloration, erosion, abrasion and interstitial gingivitis are found in connection with these diseases. These diseases, however, are far advanced in end-organs such as the dental pulp and the alveolar process long before they are manifested in end-organs in other parts of the body. This is another illustration of the fact brought out by me in other papers, that acidosis and indicanuria are the principal causes of diseases of the alveolar process and of the teeth, and it confirms a statement which I have frequently made, namely, that the educated dentist, by observing symptoms in the mouth, is able to warn his patient of the approaching storm, while the physician rarely sees the patient until the storm has broken. A reduction of acidosis and indicanuria—two of the visible signs of toxins in the blood—and a preservation of normal conditions, will overcome many of the pathologic conditions found in the mouth.

This newer and broader pathology, which recognizes the constitutional causes of diseases of the mouth, opens up a new vista on the horizon of successful dental practice.

## EXAMINATION OF CHILDREN AS A FINE ART

Winning the friendship and confidence of the little ones, as well as that of their fathers and mothers, and how it makes easy the examination and treatment. How shall we do it?

By CHARLES S. MOODY, M. D., Mullan, Idaho

THAT may not strike you very forcibly as a caption for a learned article on the science of medicine. In fancy I can hear some of the old graybeards say that it is "rot." Well, I emphatically disclaim any ability to instruct the Nestors in our profession. I am out to tell the young fellow just fresh from the college halls, with his new Latin diploma under his arm, a few things that I have observed while sauntering along the highway of medicine, occasionally coming in contact with children. I may not be able to put the matter in sufficiently plain language to make my thought understood; if not, then the fault is mine and not my reader's.

### *Reaching the Heart of the Mother Through the Child*

However, I venture to hope that, before I am through, I shall tell you some things which, properly applied, will do much toward establishing you in the good graces of the people with whom you have to deal. More particularly will this be true of the women and their children. For be it known unto you, my young medic, that the way to the heart of the mother is through baby.

How many times have we all heard this statement, varied at times perhaps, but always meaning the same: "O, I don't want Dr. X.; baby just hates him."

Moral: If you are Dr. X., just make baby like you as warmly as it now hates you, and your "calling and election" in that family are for evermore established.

Not only that, but your welcome is assured in the homes of all the neighbors, for things do travel. Your professional brethren may call you hard names and accuse you of toadying, but you have the family, and their money may look mighty good some busy

day when Hector comes; and all it has cost you to win the family has been only a little diplomacy and possibly just a little of what you may be pleased to call hypnotism, animal magnetism, suggestion or whatever name suits you best. At any rate, that little something which attracts people, and especially little people, the opposite of which is repellent. Go thou, and seek if that something is existent in thy breast. If not, cultivate it before it becomes too late.

### *My Memory of the Old Family Doctor*

How well I remember the old family doctor who brought me into the world. I don't exactly mean that I remember that particular incident with any great degree of distinctness, but I do remember the old fellow in after-years when I was struggling through the whooping-cough and measles stage of existence.

He invariably entered the sickroom grumbling like a sore-headed bear.

"Eh! Eh! What's the matter? What's the matter? Been eating something again, I'll bet," he would say.

By that time my head was as far down in the pillows as it could be bored and I was simply scared stiff. My heart was thumping away like a trip-hammer and every fiber of my being palpitating with fear.

Do you recall a physician of that kind, my dear reader? If you were raised down where I was, I venture that you do, and the recollection is anything but a pleasant one at that.

The old doctor was a sort of favorite among the men because he could sit on the worm-fence or the hitching rack in front of the village blacksmith shop and tell smutty stories by the hour, but among the women and children he was anything but a favorite.

Of course mother always had to make him welcome because father would have raised a blessed row if she had not, but as for us chaps, whenever we saw that old gray horse and dingy top-buggy turn into our lane it was a signal expressed and mutually understood for us to hike out and never show up again until the rear end of that decrepit shay had made its disappearance around the corner.

Now, there are hundreds of doctors just like that today. With a little more polish perhaps, but the underlying principle is the same.

#### *The Kind of Doctor the Little Ones Fear*

It has been my good (or ill) fortune to be called to the bedside of sick children with diverse and sundry of my professional brethren. In far too many instances have I seen the little patient cringe and cower down among the bed-clothes watching the doctor with wide and startled eyes, eyes like those of a caged wild animal unable to escape. I have seen and heard the same child scream with terror when the doctor attempted to touch it, and have seen the doctor grind his teeth and declare under his breath if he had the little imp outside he would throttle it. There is something wrong when a child looks upon the physician in any other light than as a kind friend come to relieve and assist rather than to harrass and annoy.

Perhaps you ask how I manage those cases. That is just what I set out to tell you when I got switched off on something else. Let me acknowledge at the outset my inability to express myself as I would. My command of language is not sufficient to make matters plain to you as they are to me.

#### *The "Something" which Attracts or Repels*

Let us begin with the assumption that there is an undefinable something which flows from one person to another by which that person is influenced to liking or disliking. Then let us assume that every child is a wild animal to be tamed. A child is a wild animal, it is his natural condition and tameness is the veneer that civilization lays on a person,

and often it requires years to lay it on. It has been said by the wise ones that children instinctively accept or reject persons. Nothing can be further from the truth, The fact is, persons unconsciously place themselves in a position to be accepted or rejected by the children. If the child rejects you it is your fault solely.

When it becomes my duty to attend a sick child or infant I am particularly careful to learn some things before entering the chamber. First of all I learn the name of the child and its pet name, if it has one. Next I learn its age and whether it is naturally shy or otherwise. In regard to the illness I ascertain without asking the child (supposing the child is old enough to tell) what the conditions of the bowels and urinary functions are. These are questions that I seldom ask children. Not from any ideas of false modesty or prudery, but my experience has been that children are very loth to answer them and that the physician can destroy his good impression with the little patient by suddenly putting such a question.

#### *The Doctor in the Child's Sickroom*

Equipped with the information noted I enter the sickroom. If the patient is asleep I do not disturb it until I have made a careful inspection, thereby learning many things I desire to know. If, however, the child is old enough to notice things I ask the mother gently to awaken it. I never allow a child to be awakened when its first glance will fall upon a stranger in the room. That is a mistake many make, and is a most fatal one.

Now just a word in regard to my own mental attitude. After the mother has left the room to ascertain whether the little patient is asleep I endeavor to place myself in mental rapport with the sufferer. In other words, I place my mind in sympathetic accord with the child. It need be no strenuous task to accomplish this. The true physician, the physician who feels an interest in the well-being of his patients, will already be in sympathy with his patients.

The mother now comes to the door and beckons me in. I enter the room quietly and at the same time not so softly as to give



the child the impression that I am some sort of animal creeping up to devour him. You may think that is foolish, but if you do, it is because you have never studied child-nature even a little bit. The imagination oftentimes plays sad tricks with these little fever-haunted brains, and they conjure up horrible things out of trivial little incidents that to us are inconsequent.

#### *How to Secure the Little One's Confidence*

The first requisite is to secure the perfect confidence of the child before ever attempting to make an examination. I usually seat myself upon the side of the bed, for before I have reached the bedside I have ascertained whether it shall require much time for me to secure the confidence of the child. If possible, I secure possession of the little one's hand. That once accomplished, the rest is easy. If a child will allow you to hold its hand and you cannot secure that child's confidence in two minutes, then are you unmagnetic indeed.

Right here and now is where I use the knowledge gleaned from the mother while we were talking in the outer room. While gently stroking the imprisoned hand I manage to make use of the name used by the mother in speaking to the child. I have seen half-frightened eyes gleam with pleasure upon hearing the mere mention of a name that the child has perhaps never heard by strangers before. It serves to place you *en rapport* with the patient at once. Upon pretext of learning something about the temperature I get my hand on the brow. A few passes downward, accompanied by a soothing suggestion, and the child is yours to do with as you will so long as you go about it in a manner as not to disturb the benign influence you have already created.

#### *Now—Make Your Examination!*

You are now in position to go about your examination. The temperature will of course come first. It is often quite difficult to obtain a perfectly accurate thermometric reading, but personally I have trained my tactile sense to such a degree that I can approximate the body-heat very closely by the

feeling alone. I have seen physicians who insisted in placing the thermometer in the rectum of a child five or six years of age. Then these same physicians go out and wonder why they do not have better success in dealing with children. A baby may submit to the taking of a rectal temperature, but it is not at all surprising that a child should not do so.

I content myself with the axillary test. For obvious reasons I never place the instrument beneath the tongue. Take the instrument quietly out of its case, see that it has been previously shaken down. It is very bad practice to jerk the thermometer out of the case, give it three or four vigorous shakes and approach the bedside as if you were going to jab it into the child's abdomen. Hold it in your hand for a minute until it becomes warm. Approach the bedside with an air of assurance. Manage to touch the child several times incidentally with the instrument. Never appear to doubt for an instant that the child will submit to the operation. Never convey the idea either by look or word that the child is afraid. At length gently elevate the arm and with the remark that we will put the instrument there to keep it warm, place it in the axilla. One child in a hundred perhaps will object.

I never attempt percussion with children. I confine my examination to auscultation, palpation and inspection. The jar of percussion always disconcerts the child and you learn but little from it at best. Of all our means of diagnosis I depend in children most upon palpation. The little folks rather enjoy the feel of a warm hand upon them, and as my sense of feeling is rather well developed I am able to learn much by that means.

With regard to auscultation, if you are accustomed to the use of a stethoscope it is well to take the instrument out of its case and lay it on the bed while you are doing many other things. The stethoscope is rather a dangerous-looking engine to a sick child and it is well to allow the patient a little time to familiarize it with its appearance.

Inducing a sick child to open its mouth for the purpose of inspecting the throat is

one of the most difficult problems confronting a physician. Children have allowed me to make the entire examination until I reached this point. In many cases the inspection of the throat may be dispensed with, but where diphtheria or tonsillitis is suspected it is not only necessary but imperative. I usually proceed by asking the mother to procure for me a teaspoon; meanwhile I adjust my head-mirror and allow the light to play over the child's face, all the time saying things to it in a humorous vein. In fact I spend several minutes in "jollyng" the little fellow. When the mother returns I simply take the spoon in my hand and quietly ask the child to open its mouth. In nearly every instance the request is complied with at once. If however there is any hesitancy I never resort to harsh measures. A little cajolery will generally bring results. I never permit the mother to interfere with promises of candy, whippings or such like delicacies. If all other measures fail I reach into my bag and produce a mouth-gag, and very quietly inform the patient that I *must* see into the mouth. That word "*must*" usually produces the result. The child has realized before now that other things have not hurt him and he appreciates the fact that this will not do so. In some rare cases it will be

necessary to resort to the gag, but they are rare indeed.

I had not intended at the outset to say anything about treatment, but am constrained to mention something regarding the administration of a hypodermic of antitoxin or other medicament. I have heard physicians out of number tell a child that the hypodermic needle would not hurt. To say this to a child simply destroys every particle of faith that you might have been able to inspire in that child. In his own mind he writes you down a colossal liar and not a statement you may in the future make will be believed by him. I tell my little folks that the needle will hurt them a little, but not to think about it at all. I generally tell them that it will hurt them about like one of mother's spankings. They smile at the conceit, and in goes the needle and the thing is done.

I do not imagine I have told you anything in this article you did not already know nor have I told it perhaps as well as you yourself could have done. I have simply called attention to some things that are frequently overlooked by medical men. Little things, still those that go to make up the sum total of your success or failure among the people you are called upon to attend.

## CINCHONA AND ITS ALKALOIDS

A condensation of the studies of Burggraeve, Laura and others of the dosimetric school concerning the cinchona alkaloids and other remedies useful in malaria

By WILLIAM F. WAUGH, M. D., Chicago, Illinois

The introduction of cinchona was a happy accident; the discovery of its alkaloid a piece of luck; the salification of that alkaloid a very great step in progress.—LAURA.

**D**OSIMETRY employs many salts of quinine which have, it is true, common properties; but each salt individualizes itself in therapeutics by its special properties.

In general, all the salts of quinine possess an antiperiodic power in paludal and inter-

mittent fevers, and not an antipyretic power. Although in very large doses this drug may really lower excessive heat, in disease it is no less certain that these exaggerated doses are a real menace to the life of the heart which quinine paralyzes, and to those nerve-centers the most important and necessary to life.

Schmiedeberg said that "quinine is poisonous to all the anatomic elements of the

organism; not only for those which, like the muscles and nerves, have special functions, but for those that serve only for the functions of nutrition and exchange (metabolism)."

In small doses quinine is an extremely precious physiologic and therapeutic modifier. During and just after its administration it is not necessary to forbid the use of acids or any food whatsoever on account of the quinine.

Physicians have universally looked upon fever as an enemy to be combated, and Laura, though looking on moderate fever as a symptomatic and critical process, to be respected in certain circumstances, considers elevated and diurnal fevers as pathologic facts completely disastrous to the organism, even in the exanthemata, and it is our duty in all hyperthermias to moderate the febrile process. For this purpose quinine is insufficient, and the defervescent alkaloids, aconitine and veratrine, are to be preferred. Laura does not ignore the coal-tar antipyretics or the advantages of balneotherapy, but after a long experience with all of them he unhesitatingly expresses his preference as above stated, as combining certainty of effect with absolute harmlessness.

Quinine in small doses augments the vascular pressure and the rapidity of the pulse; in large doses the effects are precisely the opposite. It stimulates the uterine muscular fibers, so that some believe it may cause abortion. It lessens reconstructive metamorphosis, hence may be employed when it is desirable to diminish the excessive activity of organic oxidation. This applies only to moderate doses properly applied. In malaria quinine acts as a protoplasmic poison (Albertoni) and this toxic action against the malarial plasmodia is the cause of its efficacy. The use of quinine in intermittent neuralgias is as yet empiric, and it may often be replaced here by the more certain and rational remedies, aconitine, hyoscyamine and camphor monobromide. Quinine intoxication from large doses may reach delirium, general convulsions and coma, the precursor of death.

These large doses often result in definite functional lesions of sight and hearing.

#### *Quinine Arsenate*

This combination possesses a power over recurrences unknown to quinine sulphate. It is equally efficient in breaking up febrile sequences and in preventing their first occurrence. It is very active and efficacious even in minute doses. Burggraave held it in high esteem, and before him Boudier and Bertoloni had shown its activity. The latter showed it to be an extremely potent anti-periodic, especially in recurrent fevers, while it dissipated at the same time in most cases the chronic glandular engorgements. In therapeutic doses it is absolutely harmless.

Twenty years previously Laura had employed this remedy in conjunction with Zimmermann in the great hospital at San Giovanni, with complete success in chronic malarias, recurrent fevers and paludal cachexias. In acute forms, however, it proved less applicable; but even here Bourières and Bertoloni obtained cures through it with surprising rapidity, while Boudin and Morgant affirmed that "arsenic possesses against remittents a power unknown to quinine sulphate."

In fevers, rebellious, ataxic and adynamic, Burggraave associated with it the arsenates of strychnine, an extremely precious agent in all forms truly depressive—in reality, if not in appearance—of prolonged maladies, especially infectious typhoids and typhus. He says: "Quinine arsenate is—with quinine hydroferrocyanide—the febrifuge *par excellence*, since one can administer it long enough before the access, without provoking gastric oppression, lassitude of the muscles or ringing of the ears. Give two granules (gr. 1-67 each) every half hour when the cold stage has passed and absorption is resumed.

Quinine arsenate is especially indicated on account of the control exerted by arsenic over the dyspepsia that inevitably accompanies the malarial cachexia. The dose must vary with the nature and resistance of the malady, the condition of the organs and the general strength of the patient. Small successive doses are the rule: for adults 10

to 20 granules daily; 30 to 50 exceptionally. Larger doses are rash and dangerous. For children give according to size and age. Not the slightest inconvenience can follow such administration.

#### *Quinine Hydroferrocyanide*

If this salt is not perfectly white reject it as impure. If badly prepared it may contain free prussic acid and be decomposed when exposed to light. This has caused some doctors to proscribe this salt entirely, sacrificing a chemiotherapeutic truth to pharmaceutical unskilfulness. When really pure no inconvenience results from the administration of this salt to either sex, at any age.

Burggraave held that the combination enhanced the virtues of quinine, so that smaller doses may be employed. It is a good antiperiodic sedative and not antidyscrasic. It is useful in intermittents, when the blood is impoverished and anemia is present. It sedates the cardioarterial circulation. As Burggraave held, it is useful in all recurrent maladies, and acts even marvelously against neuralgias, where however the excessive suffering may demand the addition of morphine. Here we draw the line—since the great Belgian developed his system we have learned to do without morphine in the practice of medicine, having for each of its many applications something better and less perilous.

In fevers, erratic and atypic, Laura gives quinine hydroferrocyanide by choice, also in the later stages of typhic fevers, especially if periodicity is evident as to any phenomena. This iron salt is equally useful in the fevers of older children, especially in grave crises, given alone or alternated day by day with quinine arsenate. He considers it a grave error to practise giving large doses of quinine, repeatedly, in the specific typhic fevers, indistinctly and unimportantly intermittent, for quinine is useful here only when the indication of intermittence is precise, from the course of the malady and certain special groups of symptoms.

The physician must never forget that one of the perils attending pyrexias, very high

and of long duration, is collapse as well as myocardial degeneration—with other general degenerations, very grave—and that this danger is great in typhic infections, and that doses of quinine too large and too frequent attack especially (by the production of quinism) the cardiac life.

Burggraave gave doses of six granules (gr. 1-67 each) every hour during the apyrexia, up to the moment of febrile access. In neuralgias it may be given every half or quarter hour. In chlorosis, dysmenorrhea or amenorrhea it gives good results. It may be given to infants at any age, in suitable doses. In certain neuropathies the selected sedatives may be administered with this salt or the arsenate. The general dynamic modifiers should be associated with specific antidyscrasies to obtain satisfactory results.

#### *Quinine Hydrobromide*

Burggraave pronounced this salt an excellent febrifuge, especially when there were indications of irritation of the spinal cord. Latour first studied it, then Baille and Gubler. The hydrobromide is more soluble than the sulphate and contains more quinine, the neutral salt having 75 percent. The action is more rapid than that of other quinine salts, and there is a remarkable sedative effect on the spinal sensory centers. The efficacy and innocuity of this salt are not now questioned.

From a great number of observations Dardeenne and Laura deduced the following: The hydrobromide of quinine is the most useful, the most efficacious, the most energetic of febrifuges; it does not cause intoxication unless in the slightest degree; it has a sedative hypnotic action; even in large doses it does not irritate the stomach; given when chills begin it often prevents the paroxysms of ague; given after the chill is established it lessens its force and duration; its action is very rapid; it can be utilized when there is an idiosyncrasy against the salts of quinine or where the latter cease to be effective.

These special properties had already been demonstrated by Gubler, by Soulez, and

more recently by Laverde. The latter declared that it lessened the suffering in all morbid processes, and considered it especially indicated when there was needed at the same time an antiperiodic, an antiphlogistic and a sedative. Its superiority over other salts of quinine lies in its energy and promptness of action and its absolute harmlessness, especially in urgent and pernicious cases where large doses of quinine are requisite.

It should be given in very grave cases, a little before the expected chill, at intervals varying from one to three hours, and continued during the paroxysm. It may be given by the mouth or hypodermically. By the latter way the action is very speedy, following small doses in a few minutes, but it is very painful. This should be disregarded in pernicious attacks. The dosimetric granules may be used for preparing extemporaneously a solution for hypodermatic use. Laura suggests that to lessen the pain of injection morphine may be added. But morphine is not a local anesthetic.

#### *Local Anesthetics in Hypodermics*

Some years ago it was asserted that if cocaine were mixed with nitric acid to a creamy consistence, the mixture could be employed as a painless escharotic. Some experiments made with this showed that there was some truth in the assertion, the cocaine acting so instantaneously as to prevent all pain from the acid, which nevertheless exerted its full escharotic power. It would be well to try if the addition of cocaine, 1-8 grain, to hypodermatic injections of such irritant solutions would in like manner prevent the suffering. Other local anesthetics like brucine might also be tried. In fact, there is room for a series of valuable experiments along this line.

In ordinary cases administration by the mouth suffices; absorption is rapid enough and no gastric disturbance is caused, or cerebral difficulty. The salt should be given during the two hours preceding the expected chill, and during the first hour of its continuance according to the urgency. The dose varies with the need. If the fever is

very high one may give a bulky dose, or if a pernicious attack is apprehended, if one be sure of this, the big dose is imperative.

Burggraave administered the hydrobromide in doses and manner similar to the hydroferrocyanide. Fractional successive doses are required when the remedy is given as an antiphlogistic or as a sedative. Laura gives 5 to 10 granules (each gr. 1-6) every ten minutes during the three hours preceding the access of an ordinary intermittent; 10 to 30 granules every ten minutes in periodic pernicious pyrexias, in the latter continuing during the hot stage and giving hypodermatically one-half or one hour before the next access is due. Gubler and Laverde gave this salt by the mouth, believing this method sufficiently speedy. Dardenne found the hydrobromides perfectly tolerated in doses of 39 grains. Gubler gave 15 grains, but thought that certain effects followed doses of 10 grains. Given as a sedative, a granule every half or quarter hour, increased or lessened, as the results indicate.

#### *Quinine Salicylate*

This salt, modifying the blood crases, is especially indicated in rheumatismal affections, acute or chronic, principally those displaying a marked tendency to remit or intermit. It is also valuable in atonic dyspepsias in which other salicylates have proved useful. Burggraave found it an excellent modifier in miasmatic and zymotic affections, acting on the blood and on the secretions. His ordinary dose was 8 to 10 granules daily, this dose being augmented without harm when desirable. As an antidyspeptic Laura gave 5 to 10 granules before meals, especially in paludal dyscrasias or to persons compelled to live in marshy places infected with malaria.

#### *Quinine Sulphate*

The subsulphate of quinine is falsified in many ways, principally by the admixture of quinidine, cinchonine and cinchonidine. In Italy, through the efforts of Ruspini, this salt had been almost completely displaced by the acid sulphate, but of late the subsulphate has been restored to some favor. Lommari,



Cardarelli and Cantani prefer the hydrochloride. The subsulphate may be employed as an antiperiodic or as a tonic. Its efficacy is much influenced by the method of administration, the intervals between doses and the size of the doses. Charcot gave this remedy for Meniere's disease, administering it persistently for long periods, often securing permanent cures and sometimes failing.

Nothing is better proved than the antiperiodic power of this sulphate. Piomy, and later Dorville, gave it in alcohol, removing some of the bitterness and facilitating its administration. This is preferable in grave paludal fevers since it prevents cerebral accidents. Acidulated drinks favor the solution of this salt.

By stimulating the uterine musculature, it renders accouchement less painful and easier. Monte Verde first showed its utility in hemorrhage due to uterine atony. Quinine sulphate relieves insomnias that have resisted other treatment (Gubler, Woillez, Kroebe, Parrot, Vilbrun), dependent probably on lack of equilibrium in the circulation and nutrition of the encephalon. Simon employed it with success for a woman with diarrhea, for thirty years exposed to paludal miasms. In other obstinate diarrheas, especially in infants, Laura has obtained success by associating the sulphate and hydroferrocyanide of quinine, and the salicylate. Gurgot also employed the sulphate in catarrhal diarrheas. Against the clinical form of asphyxia of the extremities, still obscure, some have given quinine sulphate with success, though this application appears but little rational, but rather wholly empiric. (Marrain, Reymond, Boy.) As a bitter tonic Cantani prescribes it in small, fractional doses. True lemonade is preferable to sulphuric acid as a beverage to be drunk with this salt, which should be taken between meals but some hours before an expected febrile access.

The dose depends on the indications. To prevent a simple ague chill, 7 to 12 grains suffice, given at short intervals. Doses larger induce troubles of the stomach and encephalon. In children quinine often in-

duces vomiting if given in single bulky doses. This is avoided by using the fractional rapidly repeated doses. Bartella, Aran, Casorati and Cantani recommend the association of tartaric acid to render this sulphate more soluble and assure its absorption from the alkaline fluids of the intestine. Calloud prefers table salt for this purpose.

In pernicious fevers the dose must be increased or the sulphate replaced by the hydrobromide, whose action is more certain and rapid. Here the dose should be 15 to 75 grains. As a tonic the daily dose is 10 to 20 granules.

#### *Quinine Bisulphate*

This salt (also called acid sulphate) contains one equivalent more of acid and one more of water than the subsulphate. The bisulphate is soluble in 10 to 12 parts of water. Its great solubility stands for quick absorption and speedy action. This renders the bisulphate preferable whenever quick effects are demanded. The mean dose in ordinary periodic fevers is, with adults, 6 to 15 grains; for hypodermatic administration one-half the dose by the mouth; for pernicious fevers double these doses or even further increased if necessary. In mild infections and paludal dyscrasias give in fractional doses, adding from day to day the great dyscrasic reconstituents, especially arsenic and iron, with strychnine to regenerate the nerve-forces.

#### *Quinine Valerianate*

We owe this salt to Lucian Bonaparte. It is soluble in cold water, more so in hot. Laura attributes the diverse views of authors anent this salt to the impurity of specimens with which they experimented. While the valerianate presents the qualities common to all quinine salts, it possesses distinct characteristics of its own. Cantani says that it is not only in malarial intermittents that the valerianate should be preferred to other quinine salts when there is adynamia and collapse, as in certain pernicious fevers, but especially in the neuroses of paludal origin, or as a tonic excitant in acute mal-

adies with adynamia menacing the heart, especially in typhus with hypostasis; or as an antineuralgic and antispasmodic in the neuropathies of conductivity, in particular in hysterism.

Laura places the valerianates among the modifiers powerful enough to vanquish the periodic element and the nervous element complicating and aggravating the former, this salt being an excellent nervine and sedative modifier of the nervous system. In the course of a long experience he has found the valerianate very efficacious with very sensitive persons, especially women whose uterine functions are irregular. This salt has no inconveniences for the ventricle, exercises a happy influence over the brain, and corrects irregularities of circulation. The physicians of Naples and of Rome have found it effective against grave intermittent fevers: Piquacca against fevers with encephalic and abdominal congestions.

Devay, who has studied this salt when dissolved in oil and applied by friction, concludes: (1) It is a better antiperiodic than the sulphate, because of its neurosthenic powers and because it acts in smaller doses. (2) Its use equals that of quinine combined with nervines.

In ataxic and malignant fevers it renders the greatest services. Buisson, Villaret and Laura obtained from it great advantages in intermittent neuralgias, especially when there was an old or recent paludal infection. Burggraeve recommended it in nervous fevers, chlorosis and chorea-form convulsions. The dose varies from 30 to 50 granules (gr. 1-6 each) as an antiperiodic, 10 to 20 granules, as an antidyscrasic and nervine, each twenty-four hours; when long continued, 10 to 12 granules daily suffice.

#### *General Considerations*

The salts of quinine here studied may be administered by the mouth, the rectum, hypodermatically or by inunction. In their therapeutic applications it is necessary to consider carefully the mode and the avenue of their administration. The dose is of much importance, since the effects vary with its size and may even be diametrically op-

posed. Here is where dosimetry excels by insuring doses never too large or too small, which may be defined as the art of therapeutic proportions. The doses necessary in maladies displaying paroxysms and periodical in others with fevers of ordinary access, in others with pernicious fevers, in cases demanding tonics or sedatives, or when one is to relieve a paludal dyscrasia with its possible complications and its diverse accidents pathologic and pathogenic, which in turn may be the source of a new series of indications, in the present or the future—all require consideration, as well as does the association of other remedies indicated. If the physician does not well weigh these, his intervention will necessarily be imperfect and incomplete.

The method of administration is of no less import. In ordinary, not pressing, cases we prefer to give quinine by the mouth. In imperious needs, quotidian or subintrant attacks, threatened *foudroyant* pernicious fevers, we choose the hypodermatic way as the quickest and requiring the smaller doses. So also when the stomach is intolerant in infants the clyster is an excellent means of administering quinine. For these or for hypodermics the ordinary dosimetric granules may be utilized for preparing fresh solutions.

The time of administration is not indifferent. Too close to the paroxysm, quinine has not time to penetrate to the blood and to produce a sufficient therapeutic saturation. Too far in advance, quinine is prematurely eliminated. Laura calculates the requisite dose, divides it into 4 to 8 parts, and gives one during the period of from one to three hours in ordinary cases, five or six hours before the expected paroxysm. When pernicious fever is threatened, besides the doses by the mouth as above advised, he adds a hypodermic two hours before the attack. In dangers so grave and so imminent the dose should be carried as high as may prove necessary without becoming toxic or compromising the life of the heart or the energies of the encephalon.

In the paludal cachexia he gives quinine in fractional doses, at regular intervals, according to the needs. After a complete exami-

nation of the blood and of the functionation of the different organs and apparatus, we come to the succor of the organism by filling what indications are found, in a manner scientific and precise, by modifiers special, specific and selected, given just right and according to the knowledge we possess of these agents.

In ordinary fevers it suffices to give 50 to 60 granules of 1-6 grain each.

In pernicious fevers give 100 to 200 granules.

In malaise give 10 to 12 granules a day, especially if quinine arsenate be employed.

As a sedative give 20 to 40 granules, distributed into many doses during the twenty-four hours.

With children proportion the doses to the age and the need. Sometimes the disease offers an almost incredible resistance to remedies, even the most active, and infants may thus withstand and even put to profit doses large enough to kill them under ordinary conditions.

Each patient is a particular individuality, each active malady a fact in itself, and any medicament a unity corrective and determinative, in the sense that it represents by itself therapeutically a distinct value that distinguishes it from all others. In the therapeutic doses alone permitted in dosimetry any agent is a medicament, that is, a modifier, which can not produce in the organism the accidents which we know are induced by high experimental doses on animals serving for study.

We say all this to induce the adoption of a method of administration without which it is impossible for any art to obtain profit from medicaments.

Dosimetry is methodic medicine. The above presentation affords the reader a

resume of the views of Italy's greatest therapeutist on the uses of the various salts of quinine. In Italy the question of malaria is of supreme importance. From the earliest historic periods the Roman Campagna and the valley of the Po have been notorious for the intensity of the malarial poison engendered in their marshes. The early Roman kings endeavored to drain the Campagna, the emperors made the same attempt, then the popes, till finally in our own day the problem has been solved, thanks to the discovery of the agency exerted by the mosquito. The administration of quinine therefore has a significance in Italy it possesses in no other civilized land, and this drug has there been studied with corresponding care.

We are creatures of habit, and beginning with the sulphates we continue to utilize them, as the Russians use the nitrates and the French the chlorides, without much thought as to the applicability of the various salts to particular indications. This part of Prof. Laura's work is especially valuable as showing how much better results may be attained by precision, by nicety in applying each of the quinine salts when especially indicated. We need not be slovenly in our therapeutics. It pays to be exact.

Many more times than herein stated the great Sardinian clinician urges the importance of fitting the dosage to the needs, of giving exactly the right drug in exactly the right manner, in exactly the right doses to meet the need. Those who believe in drug-medication talk in this way; those who are pessimistic concerning drugs content themselves with carelessly suggesting almost anything, given indifferently; skeptical of any but suggestive effects, they try for and obtain nothing better. There is a world of significance in their differing attitudes toward drugs and the results secured by each.

#### KEEP GOING

**W**HEN one task is finished, jump into another. Don't hesitate. Don't falter. Don't waver. Don't wait. Keep going! Doing something is always better than doing nothing. For activity breeds ambition, energy, progress, power. And inactivity breeds idleness, laziness, shiftlessness, sloth. Don't dawdle in the hope that inspiration will strike. Inspiration is more likely to strike a busy man than an idle one. Save the half hours that are wasted in waiting. That is the secret of system. Keep going.  
—The Pacemaker

## CLYSTERS AND HOW TO USE THEM

Some of the many kinds of "injections" which are of value to the physician. How they may be prepared and administered in properly selected cases

By B. F. HARDING, M. D., Mansfield, Ohio

**C**LYSTER: A fluid substance injected into the lower intestines by means of a syringe; an injection; enema." (Webster's Dictionary.)

The objects of enemata are the removal of fecal or other irritant matter, to cleanse the lower bowel, or to supply nutrition.

In the use of clysters, or enemas, I have used many kinds, and I cannot say that I favor any special method or kind, as each case must be treated according to the condition existing.

### *Method of Giving an Enema*

Enemas should be given with a fountain syringe, except where a very small amount of fluid is used. The dorsal position is the most favorable for all injections, with the hips elevated when it is desired to reach the upper portion of the colon. Some physicians prefer that the patient lie upon the left side, and there is no objection to this position.

The temperature of the fluid used varies, some advising cold, others as warm as can be borne, and others again use a tepid or body temperature for enemas. It is claimed that peristalsis is greater where cold water is used, but there is objection to this where there is a weak constitution and a liability to shock. I use enemas of tepid or body temperature for all clysters, relying upon some added substance to induce action. I would suggest that the temperature be at least that of the room, not to exceed the body-temperature. Thus used I have found the results better in every way.

It is not altogether an easy matter to give an enema correctly, and should not be left to inexperienced persons to administer. The modern precaution of antisepsis should be strictly observed.

The quantity of fluid used plays an important part and has much to do with the results. It will be observed throughout this article that a small quantity is generally advised; however there are exceptions. It will be found that the patient will retain a small quantity, and there is not the danger of dilating the bowel, thereby causing a relaxation and hence failure to respond.

In the treatment of constipation by colon irrigation we find as many conditions as we have medicated clysters to use, and we change from one to another until results are obtained. I believe that much harm is done by a lack of knowledge as to the drugs used; too much of somebody's say-so is taken and not enough studying of the individual cases. A careful study should be made of the quantity used, the temperature of the fluid, the mode of administering, and the time when best to use. This may seem unimportant to many, but success will depend largely upon these suggestions. Frequent irrigation and overdistension of the bowel is harmful, and while I am aware that not all agree with me as to the temperature used, I feel that cold enemas are harmful in many ways.

Colon enemas are of value in many cases, at least when the obstruction is found in deeper parts of the large intestine, especially in intestinal invagination or when an abnormally large sigmoid flexure has become kinked and causes obstruction; even if the obstruction is in the small intestine, irrigation may be of some benefit by arousing peristalsis. In general it will free the colon of any fecal matter. Hutchinson and Treves recommend slight anesthesia during colon irrigation. If it is desirable to reach the upper part of the colon the amount of fluid

must be increased (to 1 to 2 pints or more) and should be injected under strong pressure to prevent its return.

#### *Enemas which Increase Peristaltic Action*

Irrigation produces increased peristalsis by stimulation; and this action can be further increased by lowering the temperature or by the addition of appropriate drugs. Some suggest equal parts of vinegar and water, but perhaps the most common is the soap enema made by dissolving green soap, 5 drams, in 6 to 8 ounces of water. If there is one enema that has given me good results, and but few failures, it is the oil, molasses and soapsuds combination, which I have found to act when all others failed. It is made by mixing thoroughly equal parts of castor oil and common baking molasses, then adding 6 to 12 ounces of warm soapsuds and stirring well. Place this emulsion in a fountain syringe, previously dipped into hot water for the purpose of keeping the oil and molasses at a proper temperature. Inject slowly. Results usually are obtained within 10 to 20 minutes. If intended for the lower bowel 6 to 8 ounces will suffice, but if it is desired to reach the higher portion of the bowel, possibly to the ileocecal valve, I use from one pint to a quart of the solution.

On occasions I have used equal parts of castor oil, molasses and glycerin, adding to this mixture either plain tepid water or the soapsuds, and this clyster has never failed to empty the bowel, causing very little if any depression. The substitution of olive oil for castor oil will not work, neither will it mix as well with the molasses. The temperature of the foregoing enema should be about 98°F., and, as said before, if thrown into the lower bowel, should be given slowly and with but little pressure, while if to pass up higher, more pressure must be applied.

Solutions of table-salt (2 to 3 tablespoonfuls in 6 ounces of water) and glauber salt (1 tablespoonful in 6 ounces of water) are among the favorite enemas; sometimes it may be necessary to add to the former one or two drops of croton oil.

Glycerin alone in small amounts (15 to 20 minims) may be injected. This stimu-

lates the intestinal wall by attracting enough water into the intestine to induce a movement. If the patient is very nervous or sensitive, dilute with equal parts of tepid water. Use a small syringe. In employing small enemas for the lower part of the bowel you have the advantage of their being retained longer and fewer applications will be required.

For high enemas I use a fountain syringe in connection with a soft-rubber rectal tube, 12 to 15 inches long pushed over the hard rectal pipe. Usually I cut and insert into the descending rubber hose a short glass tube in order that the nurse or physician can watch the flow of the fluid. The force is regulated by raising or lowering of the reservoir, enough pressure being used to prevent the return of the fluid. The elevation of the hips (with the patient in the Sims position) will assist in carrying the fluid higher up. It is more agreeable and satisfactory generally if a tepid solution is used, this remaining longer in the bowels, thus giving more time to the softening of the feces.

#### *Oil Clysters and How to Use Them*

Oil clysters, to which renewed popularity has recently been given by Kussmaul, are to be recommended. For these the apparatus used is the usual irrigator when a large quantity of oil is to be injected. From 12 to 16 ounces of sterilized olive- or cottonseed oil at body temperature is injected under very low pressure, so that the process takes about a quarter of an hour. The oil may not act for several hours and then not until a water enema has been given. The bed should be protected by a rubber sheet.

The oil here acts in several ways: (1) it detaches the fecal matter adhering to the intestinal walls; (2) if inflammation is present it reduces pain and helps to induce a movement; (3) it checks the absorption of water; (4) it remains a long time in the bowel and thus is enabled to stimulate peristalsis by virtue of the oily acids split off by the bile and pancreatic juice. When the oil reaches as far as the ileocecal valve it may be useful in overcoming spastic as well as atonic



constipation. As it takes nearly 24 hours for the oil to be eliminated from the intestines, such enemas should not be given more than twice a week, and discontinued entirely as soon as a permanent passing of loose stools is obtained. According to Ebstein, 10 ounces of oil may be given daily for several weeks in succession.

One writer claims good results in obstinate constipation from a combination of oil and water irrigations. He takes, first, three or four tablespoonfuls of tepid oil, sometimes alone, but generally beaten up with the yolk of an egg and half a glass of water, directing the patient to hold the clyster; one-half hour later 1 quart of tepid water is given. By the first injection the contents of the bowel are softened and the walls slightly stimulated so that the second injection more certainly induces a movement.

#### *Slow Injections of Lukewarm Water*

There are times when the intestines will respond neither to small enemas of cold nor large ones of warm water. Here the following has been recommended: One to two pints of lukewarm water under low pressure is slowly injected; this process is repeated for ten to fifteen minutes until the water expelled shows no signs of fecal matter; then the water is allowed to flow out entirely and a glassful of water at room-temperature is injected and retained as long as possible. If no stools follow the first attempt, this process should be repeated from day to day until an abundant movement has been secured. As to the value of this procedure I cannot state.

It is important that all enemas should be given at the same time each day, preferably after breakfast.

One writer states that ice-water enemas should be given only under very exceptional circumstance, but he does not state what those circumstances may be.

Kraull's irrigation is recommended where the proper diet and the use of mineral waters do not have the desired effect, that is, a daily quick colon irrigation with one quart of water at 60 to 70 degrees, or even ice-cold. This irrigation causes violent peristalsis.

I should prefer to augment peristalsis by the addition of some substance that stimulates the intestines chemically. A writer recommends castor-oil emulsion with the white of one egg and six ounces of water.

#### *Clysters for Intestinal Parasites*

In the treatment of intestinal parasitic disease the use of clysters in the hands of some have been beneficial, but only when the parasite occupies the large bowel. In oxyuris vermiciformis enemas have been used with good results; these however must be repeated every evening or even twice a day for some time, or until the examination of the stools gives negative results. For these enemas a solution of one-half tablespoonful salt or of vinegar to the quart of water is recommended. Where there is tenesmus, itching and restlessness some appropriate drug is called for. One very old but favorite remedy for worms with many is garlic. For use take one or two bulbs of garlic, chop fine and boil in one quart of water or milk, divide into three parts, to be used on successive days. In the place of this I have employed the following: (1) Thymol, 1 part; olive oil, 100 parts; (2) naphthalin, 25 percent [?] with codliver oil; (3) benzoin, 18 grains, with the yolk of one egg to 4 ounces of water. The best remedy that I have used for this purpose is the solution of bichloride of mercury, 1 to 3 parts in 10,000.

#### *Nutrient Enemata*

"Nutrient and cleansing enemas" according to author, "are indicated in severe dilation of the stomach and diseases of the digestive tract, in stenosis of the esophagus or of the cardiac orifice, in hemorrhage of the stomach, severe vomiting, and acute inflammation of the intestines. They cannot, however, be used for any protracted treatment, as the digestive power of the intestinal secretion is, as a whole, very weak, and the large intestine absorbs nutriment much less readily than the small."

From eight to ten ounces of nutrient may be given every eight to ten hours. First the bowel should be cleansed with tepid water or a weak saline solution at least one hour

before, using from one pint to one quart of the saline fluid at body temperature. The nutrient enema should be given at a temperature of 95° to 98°F., injecting it as high up into the bowel as possible through a soft-rubber rectal tube to which has been attached a medium-sized funnel. (Never employ a syringe.) Place the liquid food in a small pitcher and from this pour it into the funnel, raising or lowering the latter as required to force the food into the bowel. The patient should be kept quiet for one or more hours afterwards. If he cannot retain the enema, add 5 to 20 minims of tincture of opium.

I have never found it necessary to employ more than one cleansing enema a day, usually giving it in the morning. If it is necessary, a second cleaning can be given in the evening.

#### *A Good Nutrient Enema*

A favorite nutrient enema consists of a cup of milk, the yolk of one egg, two teaspoonfuls of red wine and a pinch of salt. Some add peptone.

Gruetzner says the reason for adding salt to rectal feeding is that it may cause antiperistaltic movements and so carry the food into the upper part of the intestine.

Resheim recommends 1-2 dram of peptone, 1-2 ounce of grape-sugar, 1 to 1 1-2 ounces of codliver emulsion, a few teaspoonfuls of 3-percent solution of soda, and 8 ounces of warm water.

Boas employed the following: Milk eight ounces, yolk of two eggs, one tablespoonful of red wine, one teaspoonful of starch and a pinch of salt.

Peptonized or pancreatized milk often is used for nutrient enemas.

As grape-sugar is easily absorbed from the rectum, it is recommended as a nutri-

ment; one tablespoonful may be added to any nutrient enema.

When prescribing rectal enemas I usually start with 8 to 10 ounces, and if retained, I gradually increase the amount to the limit of endurance. The larger the amount of nutrient used the less the thirst of the patient.

#### *Another Good Enema*

Since reading Boyd and Robertson's work on rectal feeding I have selected their choice:

The yolk of 2 eggs, pure dextrose, 1 ounce; table salt, 7 grains; pancreatized milk, 2 to 3 ounces, boiled water, 9 ounces.

I increase all the ingredients as the patient is able to retain them. Hemmeter advises that not over 8 ounces should be used; that a towel wrung out of hot water be placed against the anus and held there for fifteen to twenty minutes after the injection; that the rectal tube should be introduced full 12 to 18 inches, the higher the better; that the temperature should be that of the body.

Rectal enemas are employed for purposes other than those of nourishing and relieving constipation. Thus in gastric disease when the stomach is seriously impaired (e. g. cancer) the supply of water can only be given by way of the rectum. For this purpose one-half to one pint may be injected two or three times a day. If a stimulating effect is desired a third of a teaspoonful of brandy may be added.

Further, enemas of water are recommended in acute infectious diseases and obstructed kidneys to reduce temperature and remove toxins from the blood. In the same manner the volume of blood is augmented in cases of loss of blood or severe drain of diarrheas. The giving of any form of enemas should not be left to those who have no knowledge of cleanliness and asepsis.



## THREE YEARS' EXPERIENCE WITH PNEUMONIA

During which period sixty cases were treated with only three deaths. A description of the method of treatment which has brought success

By W. C. WOLVERTON, M. D., Linton, N. D.

**D**URING the four years I spent in one of the foremost medical schools of this country, where the internist was in thorough accord with Osler as regards the treatment of pneumonia, I had it pretty constantly pounded into me that "pneumonia" is a self-limited disease, whose course cannot be shortened or in any way favorably influenced by any known method of treatment; besides, this professor was one of the greatest pathologists of our time before he took the chair of Internal Medicine, and so never did have much faith in the use of drugs in the treatment of disease. His entire list of drugs in pneumonia consisted of strychnine, calomel and ammonium chloride.

But while I was attending school, a kind Providence sent to my hand a copy of the then ALKALOIDAL CLINIC, whose teachings at once appealed to me as being both optimistic and logical. I at once subscribed for THE CLINIC, and have read it and its successor, CLINICAL MEDICINE, ever since (seven years); and this good missionary neutralized and rendered innocuous the nihilism taught me at my school.

### *An Experience of Three Years with Pneumonia*

When I was graduated and began to practice, three years ago, I at once applied the principles of "active-principle therapeutics" I had gleaned from THE CLINIC and "Shaller's Guide." Especially was I anxious to learn what there might be in the "abortive treatment" of pneumonia. I have been practising just three years now, and while I have not seen so many cases of pneumonia as do men whose practice is mainly in city hospitals, still I believe that a report of the pneumonia-cases I

have treated in my three years' experience will lead any reasonable person to draw certain conclusions regarding the "alkaloidal" or "abortive" treatment of pneumonia.

In the past three years I have treated just sixty cases of pneumonia, always using the same general plan of treatment, modified to suit individual cases; one must remember that he is treating the patient, not the disease. Of these 60 patients, 12 were under 5 years of age; 6 between the ages of 5 and 10 years; 11 between 10 and 20 years; 5 between 20 and 30 years; 10 between 30 and 40 years; 7 between 40 and 50 years; 3 between 50 and 60 years; 2 between 60 and 70 years; 4 were over 70 years of age. Of these 60 patients, 33 were males, 27 females; 8 had bronchopneumonia, 52 were of the lobar type. Of these 60 cases, only 2 ended fatally; one was an infant of 11 months, having its second attack within five months; the other was a man of 40 years, a very excessive user of alcohol.

### *The Internal Medicinal Treatment*

The drugs mainly used in these cases were veratrine, amorphous aconitine, strychnine, digitalin, and calomel.

When a pneumonia patient comes under my care, I give him 1 grain each of calomel and soda every hour for from four to six hours to clean out thoroughly the gastrointestinal tract. This insures the prompt absorption of the medicaments aimed at the trouble proper, and, besides, does away with intestinal putrefaction and consequent symptoms of autointoxication. With a loaded colon it is useless to give veratrine and aconitine and expect really satisfactory results.

The next thing to be done, in all sthenic cases, is to administer veratrine and amorphous aconitine, each gr. 1-134 to gr. 1-67, every twenty or thirty minutes until the pulse softens and is reduced in frequency to 90 or even 80 per minute, the temperature begins to fall, and the harsh, dry skin becomes moist. The best way to administer the veratrine and aconitine is dissolved in a spoonful of hot water; but if the patient objects to the bitter taste of the alkaloids, he may take the granules or tablets whole, followed by a little water, hot being preferable, as a rule.

In asthenic cases it is well to add strychnine and digitalin to the veratrine and aconitine, or even to omit the aconitine and use a combination of veratrine, strychnine and digitalin. Many "active-principle therapeutists" use a combination of aconitine, veratrine and digitalin (defervescent comp.) in sthenic cases, and aconitine, digitalin and strychnine (dosimetric trinity), in asthenic cases; but, personally, I like best the veratrine and aconitine, guarded by occasional doses of strychnine.

When defervescence has begun, and the pulse softens and slows and the skin becomes moist, it is time to diminish the frequency of administration of the veratrine and aconitine; they should then be given every hour, of each gr. 1-134 for adults, until the pulse is about normal and temperature is down to 100° F. at least. After that they are to be given every one to three hours, as necessary to *hold* the pulse and temperature down.

If any signs of undue cardiac depression should appear, give strychnine and digitalin. (And right here let it be said that doses of 1-100 grain of digitalin will not produce results, and that is why there are so many failures with it; gr. 1-15 to gr. 1-4 must be given to produce results.) But if veratrine and aconitine are given in dose of gr. 1-134 to gr. 1-67, every 20 or 30 minutes, *to effect*, and then just often enough *to maintain* that effect, there will be no undue cardiac depression. These are powerful drugs, but are perfectly safe if given as above outlined.

I rub the whole chest with hot camphorated olive oil, to which a little oil of turpentine has been added (or camphor and lard melted together), and then apply a cotton jacket, made by lining an undershirt with a thick layer of cotton held in place by a few stitches here and there. Heat is applied to the affected side of the chest and to the feet; cold compresses to the head if headache is troublesome. Plenty of fresh air and not too high a room temperature are insisted upon. Tepid sponging gives much comfort to the patient.

Liquid diet, or better, no food at all, is given, until convalescence is established. The bowels are kept clean by the use of calomel or salines. If tympanites is a troublesome symptom, the sulphocarbulates of zinc, soda and lime, with plenty of water, are given. If cough is persistent and painful and expectoration scanty and viscid, codeine or morphine with syrup of hydriodic acid will give relief.

Under the above treatment only 2 of the 60 cases ended by crisis, and they were seen too late to be aborted, one patient being seen for the first time on the fifth day of the disease. None of the other cases went longer than the fifth day before apyrexia was established; in many cases lysis was complete on the third day. But the really *aborted* cases constituted at least one-third of the total number treated, and they were practically normal as to pulse, temperature and respiration in from twelve to forty-eight hours, with the lung rapidly clearing up; in fact the patients were practically well, at least well enough to sit up.

#### *The Case of a Russian Farmer*

A few days ago I was called to see a Russian farmer, aged 34, whom I knew to be a syphilitic (had typical saddle-nose; his wife also syphilitic), and who was my first pneumonia-patient when I located here two years ago. So this then was his second attack of pneumonia; he had also had a severe attack of influenza the preceding winter. This time I found him very ill, in his sodhouse, twelve miles in the country. He had a severe "stitch"

in his left side; had experienced a rigor; there was a troublesome cough; temperature  $101^{\circ}$  F.; respiration 35; pulse only 55, very irregular and weak, and every little while dropping a beat; wife told me the patient's lips had been very blue before I arrived.

Percussion showed dulness over the left lower lobe; auscultation revealed diminished breathing-sounds over left lower lobe anteriorly, with fine crepitant râles; posteriorly, no breathing-sounds were audible over the affected lobe.

I at once administered gr. 5-67 Merck's Germanic digitalin, with strychnine arsenate, gr. 1-15. For the pain in the side morphine was given. In a few minutes the pulse became stronger and more regular, so that I thought it safe to begin with the veratrine, and he got gr. 1-67 of it. When I left, about an hour later, the pulse was 64, regular and full though soft. I left granules of veratrine, gr. 1-134, of which the patient was to get two every hour; digitalin, gr. 1-67, three to be taken every three hours; and strychnine arsenate, gr. 1-30, two every three hours. A big flaxseed poultice was also applied to the affected side of the chest.

While making this visit I had with me a medical student from one of the leading Chicago schools, who had just completed his third year; he is fast becoming a "dyed-in-the-wool therapeutic nihilist," and the sight of my alkaloids scared him. He examined the patient with me, and expressed it as his opinion that the man would almost surely die, as he did not believe the heart would hold out over twenty-four hours. In fact I myself was not very optimistic as to the outcome of this case. I must acknowledge that I was surprised when I called to see the patient, next day, and found him sitting in a rocking-chair, holding the baby.

I expect that the "nihilists" will say that most of the 60 cases I have reported were not pneumonia; but when I see a patient with flushed face, respiration 30 to 60, pulse 100 to 140, temperature  $101^{\circ}$  to  $105^{\circ}$  F., cough, sputum streaked with blood, "stitch in the side," percussion-dulness over one or more lobes of the lung, breathing-sounds obscured and vocal fremitus increased over the affected area of lung, then either that patient has pneumonia or is rapidly heading toward it, and if treated on the "expectant" plan of treatment will *certainly* have pneumonia. And that is the set of symptoms observed in practically every one of these 60 patients.

Of these 60 cases reported, 53 had pneumonia as the primary disease, while in 7 cases it occurred as a complication of influenza, last winter; 2 patients had two attacks each, one had had five attacks previously; one was undeniably syphilitic.

As to the patients who died (there were but two), the first was an infant of 11 months, whom I did not see until he was dying; this was the baby's second attack in five months. The other fatal case was that of a man, aged 40, who was a chronic booze-fighter. When I was called to see him I found him lying in the harness-room of a livery-barn, and he was a hopeless case then; the only available place to keep him was in one of North Dakota's "blind pigs," his nurses being the bartender and a cow-puncher. The patient was wildly delirious from the start.

The other 58 patients recovered. Even though the course of the disease had not been shortened in these cases by this treatment, the fact that 97 percent of the patients recovered should speak well for the treatment; for that is certainly better than the "expectant" treatment ever does.





# THE THEORY OF ECLECTICISM

A brief description of the early history of this medical school, its development and its distinctive characteristics and present tendencies

By FINLEY ELLINGWOOD, M. D., Chicago, Illinois

Editor of *Ellingwood's Therapist*

IN presenting a brief paper on the above topic, I cannot at this time take up the history of this school in its development, and this may prevent my making some of the statements following as clear as I should were I to go into full detail.

## *The Meaning of "Eclectic"*

The word "eclectic," in a general sense, is defined by lexicographers as "selecting or choosing from various sources or systems;" "consisting of or made up of that which is chosen or selected." The word, in medicine, was applied, about the year 1837, to a class of physicians who were trying to break away from what they claimed was dogmatic and intolerant on one side, and from the strictly sectarian on the other side. As the practice of these physicians had developed during the previous thirty or thirty-five years there was in their methods no well-defined underlying principle of action. In the cure of disease every man felt it his duty to sustain the vital forces, as well as privileged to use as remedial measures anything from any source, regular or irregular, that would cure disease in a simple manner and that would not in any way interfere with the normal functional action of any organ or part, even temporarily.

Because of a general dissatisfaction with the results of promiscuous bleeding which was then a common measure, and because of the lack of success which followed the course authorized at that time—a routine course of active depletive measures and of purgation by the use of immense doses of the mercurials, irritating cathartics and antimony—these methods were almost entirely discarded. Every effort was then directed toward the discovery of medicines, and of

courses of treatment which would replace all of these in their desired effects without depletion, and which would materially add to the then limited resources of the profession at large in the cure of disease.

At that time the field of botanic drugs had not to any great extent been entered upon. Wooster Beech had published a book which had attracted a great deal of attention to this class of remedies, and had caused quite a large number of physicians to adopt them in their practice. Enough had been observed from their experiences to cause a general belief that in the action of some of the indigenous remedies of the United States and of the Americans there was a field for study and research that would probably repay investigation more fully than any other.

## *The Modern School of Eclecticism*

The Eclectic School of Medicine, as it now exists, is in method almost as widely different from the crude methods and ideas of the fathers of the school at that time as the present system of surgery is different from the methods of the middle ages. Fifty years ago the faculty of the college at Cincinnati saw the necessity of outlining for the school a basic principle of action which should guide the future investigators into lines which would result in the ultimate development of a definite system of practice along strictly scientific lines.

The original work of Dr. John King, in the line of determining the character and definite action of plant-drugs, and of Dr. John M. Scudder in inaugurating an exact, specific method of disease analysis, and of specific diagnosis of conditions, with a development of the knowledge of the specific ap-

plication of each remedy, laid the foundations of our present system.

To these men, especially to Dr. John M. Scudder, in the natural evolution of a systematic scientific method, out of the chaotic conditions which then existed in the so-called reform school, the development of at least three important things seemed essential: First: an analysis of disease-factors, a direct diagnosis of disease-conditions without regard to the name which the disease held, but with reference to those conditions which could be found present in the patient under consideration. Second: a thorough knowledge of the precise, exact and reliable action of each single remedy, with reference to its influence upon any exact process or processes of disease. Third: the preparation of a class of remedies which should have absolute uniformity of strength and which should be definite in their action and always the same. This he designated as "specific diagnosis" and "specific medication." Dr. Scudder spent his entire life in developing the knowledge of these three underlying principles.

#### *The Makers of Eclectic Remedies*

The preparation of the medicines was first taken up by William S. Merrell and was subsequently continued by John Uri Lloyd. Later the preparations made by the Lloyd Brothers company were distinguished by the name of "specific medicines" (not specific tinctures, as but few of them are prepared after the manner of tinctures). By the method now adopted in the manufacture of these remedies, each remedy is worked out with reference to conditions existing in the remedy itself, by which it has been found to yield to the very fullest extent its correct medicinal properties. There are considered: the proper time for gathering the plant; the particular part of the plant which contains its active properties; the best conditions involved in obtaining its properties; and that particular menstruum to which it will yield most fully its medicinal principles.

The manufacturers long ago discovered that the use of an arbitrary amount of alcohol to a fixed proportion of water with which to extract the properties of all medicinal

plants was an error; that the menstruum must vary very materially with different plants, and with the same plant in different stages of its growth, and whether green or dry. They also discovered that the established process of distillation by boiling seriously impaired the properties of certain drugs, changed the character of others entirely, and could not be relied upon to exercise a uniform influence upon all. This caused them to adopt their cold process of distillation.

Very early in the course of his studies Dr. Scudder saw, as above referred to, that if a specific method of drug application was ever worked out, it would be, not with reference to the action of any one remedy or arbitrary combination of remedies upon the entire symptom group included in any given disease, but that the action of each remedy must be studied with reference, first, to its influence upon the leading symptoms of that disease which were found present in the patient under treatment always; and second, with reference to its influence upon those conditions present which depended directly upon the leading conditions.

#### *A New Method of Diagnosis Necessary*

To carry out this study effectually and in a scientific manner plainly demanded an entirely new method of diagnosis. It demanded that every disease be carefully analyzed with every patient; that every factor be studied with reference to all of its characteristics; that it be so closely observed that it could be recognized promptly if found present in other diseases or in conjunction with other symptom-groups. Many factors were studied independently of any of the diseases in which they might be found present. This study developed a new, definite and previously untried field.

Concerning the influence of drugs as applicable to the conditions determined by the above-mentioned course of study, it is not possible to give in this short article even an outline of the discoveries made. Suffice it to say that the work of these two men, enforced by the coöperation of the entire school later on, has developed a knowledge of drug-

action upon disease-conditions which even the most sanguine, fifty years ago, could not have anticipated.

In the evolution of these principles of Dr. Scudder, in the persistent, thorough and practical investigations that this evolution has made necessary, there has developed a school of physicians the members of which may now be correctly called specialists in the study of *materia medica*, pharmacy and therapeutics. The school, in practice, is distinctly and positively a School of Therapeutics. This includes, as stated, the diagnosis of disease, specifically, with reference to the exact selective action of drugs and their specific action upon separate, clearly defined conditions of disease as shown by definite symptoms. These are the principles which plainly distinguish between eclectic physicians as a school, and the physicians of other schools.

#### *Clinical Observation of Drugs Neglected*

That which is required of medical students today by the colleges and by the profession at large is that each student be thorough in his knowledge of the causation of disease, of pathology, bacteriology, microscopy, histology and the other underlying scientific branches of the curriculum, also of surgery. It insists upon a laboratory study of the action of drugs upon animals in a condition of health, but does not enlarge to any extent upon the necessity of the observation of the clinical action of drugs, especially of such action upon exact conditions of disease.

Eclecticism demands of its practitioners everything demanded by such a curriculum. It omits nothing. In addition, as has been stated, it demands a thorough knowledge of drugs and of their action. It demands a certain amount of laboratory observation, but in addition to this it demands a thorough bedside study, a thorough clinical knowledge of the action of each remedy, and the *clinical observations take precedence, in every case, over observations obtained from the laboratory.*

Our experience in this close and thorough study as outlined above has taught us some very important lessons. Of course the action of a drug, empirically considered, has usually

suggested, at first, and in part directed, the line of our observation. This has ultimately led us to the rational influence of the drug from a physiological standpoint, and as this influence is permanent and invariable in the drug, we feel that our work is permanent.

We have been forced to believe that remedies from organic sources, remedies which have been produced by the natural vital processes of reproduction, growth and development, are more perfectly in harmony in their action with the vital processes of the body. We find these remedies more readily received, more kindly in their action, more naturally broken up into the organic chemical constituents of the body; and if to be eliminated, more quickly, more readily eliminated, more completely and perfectly thrown out of the system after their influence has been exercised, than any other class of remedies.

#### *Inorganic Sources of Medicines*

We have found, also, while the human body is comprised of chemical constituents which exist around us in the form of inorganic elements, that usually these inorganic constituents are more readily and more happily received and appropriated if they have previously passed through the organic vital processes of plant-growth.

We have not as yet been able to obtain these elements for common use in medicine from organic sources, but when the calcium, potassium, sodium and iron salts, and others of this character, can be obtained readily from plant- or animal-growth, we shall have solved a very important problem in the application of these agents in medicine.

We have also learned that many of the medicines obtained from metals, or compounds of the metal with the earths, act by local influence, by irritating influence, or as foreign bodies not wholly harmonious with or congenial to the essential vital processes of the organs on which they are supposed to act.

Very early in the study of the chemical character of our remedies the alkaloids and resinoids were separated and their action as medicinal agents was given quite thorough

attention. They were at once classed as an exceedingly important group of remedies, but each possessed of an influence different from that of the herb from which it was derived. Thus it was seen that they would demand a very close and thorough study as a separate class of remedies. At first it was thought that they would replace the fluid remedies, but it was decided later in the development of the clinical knowledge of these remedies that it was best for the school to continue in the uses of the fluid preparations, and these have proven indeed to be very satisfactory. The use of many of the concentrations and alkaloids has been continued by individual observers and their exact properties have been determined and a fixed place has been given them in our therapeutics, but each, as stated, is studied as a remedy separate from the fluid remedy derived from the same plant.

#### *The Use of the Synthetics*

That class of remedies known as the synthetics was taken up by our physicians very early in the period of their introduction and was very thoroughly tried and fully considered in the line of our definite and thorough study. From the first we found serious reasons why they could not be accepted and generally adopted. It was soon very clear to our investigators that the introduction of this class of remedies, which have been denominated by some chemists synthetic monstrosities, was an invasion in therapeutics, largely dominated by commercialism, and their introduction, judging from their character and from the results obtained from their action, was almost entirely without justification.

After a sufficient time in which to confirm these conclusions our authorities raised a protest against this invasion, but they met the invasion in a dignified and effective manner, as has been proven by the fact that at the present time it is exceedingly doubtful if two percent of the remedies of this class, which have been brought forward and have been so extravagantly praised by their manufacturers and accepted by the profession, have sustained the expectations of those

who have adopted them; while our own remedies have firmly held their ground and have slowly but surely and permanently increased in their popularity.

Some of our reasons for discarding the synthetics were that they were uncertain in their action, and often unstable in their composition; that some of them would exercise a permanently depressing influence upon the heart and circulatory processes or upon vital structure or function without a contributory beneficial effect; that many others would change the character of the blood and produce toxic elements within the blood; that a large number of them would produce permanent results which must necessarily be overcome by other treatment before a complete cure was accomplished in the patient.

Most of these remedies have an organic base, but the artificial bodies that are produced by the forced compounds that are made from them in the synthetics are so unlike anything in nature that they do not harmonize with the normal processes that are at work in the body. They are not clearly defined, reliable or constant in their action. They can not be applied in the manner of the rational processes or methods of application which we are endeavoring to follow. We have in nearly every case found a superior substitute for their action, among our rational remedies. We have, therefore, used but few of the synthetics, and these we have not as yet been able to give any definite place in our therapeutics.

#### *Eclecticism and Homeopathy*

Because we use a number of remedies which were originally brought out by the homeopathic physicians and because many of our remedies by virtue of their concentrated character are used in small doses, many have thought eclectics to be allied with the homeopaths, while in truth there is but little resemblance between their methods and ours.

We consider conditions with all their bearings as brought out by their symptomatology. They consider a very minute symptomatology, and in many cases treat the symptoms alone,

without reference to the condition. They study the physiologic action of remedies in order to determine their so-called dynamic influence, which is strictly governed by their law of similars, as, if in the course of the physiologic action of a drug it produces a certain symptom, that symptom will be cured by that drug in an extreme state of attenuation. The medicinal action with us is in line with the purely physiologic action of the remedy. We are guided by the action of the remedy as shown during disease. This to us has been the course which has produced the best results.

To any reasonable, practical mind it would seem that a definite, systematic plan like the one adopted by these physicians would have engrossed the attention of the best minds in the profession, centuries ago. Where has research been more essential?

In what department of human knowledge has it been exercised more unsystematically? In which of the branches of science, comparatively speaking, has there been so little accomplished, so few satisfactory results obtained, as in the actual treatment and cure of disease?

Does it not seem to every reasonable mind that the real object to which a student aspires, the real goal of attainment in his profession, must be the cure of disease, must be a knowledge of those remedies and measures which will most quickly, most readily, and in a harmless manner remove the existing conditions of disease and restore the patient to health? And yet, at the present time, is it not true that many branches of the profession, which are really only auxiliary to this, receive a great deal more attention than this?

## BERBERINE AND BERBERINE-BEARING PLANTS

A study of the most widely distributed alkaloid, one which is found in the plants of ten natural orders, and whose therapeutic applications are very extensive

By J. M. FRENCH, M. D., Milford, Massachusetts

**B**ERBERINE is a yellow, crystalline, bitter alkaloid, having the chemical formula  $C_{20}H_{17}NO_4$ . It is found in the roots of certain plants. According to Merck, it occurs in two forms: as a lemon-yellow precipitate without any distinct crystalline structure, and in tufts of dark red-brown needles having a crystalline formation.

*Its primary physiological action is on the central nervous system, first paralyzing the automatic centers and later the spinal cord.*

*Its characteristic therapeutic action, when given in medicinal doses, is to produce contraction of abnormally relaxed muscular and connective tissue.*

Its chief uses may be arranged under three heads, all of which involve this characteristic action:

1. As a simple bitter tonic, wherever there is a lack of tone and relaxation of tissue.

2. In catarrhal conditions of the mucous membranes, characterized by relaxation and oversecretion.

3. In enlargement of the spleen, subinvolution of the uterus, dilation of the heart, and similar conditions. It must be added, however, that its use for the third indication is thus far mainly theoretical, since it has not been sufficiently employed in this class of cases to determine its effect with any degree of positiveness.

Berberine is said to be the most-widely distributed alkaloid in the plant-world. It is found in plants widely separated both in geographical location and in botanical characteristics.



The uses of berberine are such as to render it one of the most important and frequently indicated of all the alkaloids. In general, it is a remedy for conditions rather than diseases.

The following are some of the principal berberine-bearing plants, with their chief active constituents, medicinal properties and therapeutic uses:

1. *Berberis Aquifolium* (Oregon Grape). Natural order, Berberidaceæ. Constituents, berberine, berbamine, oxycanthine, phytosterin. Properties, alterative, tonic, anti-syphilitic. Uses, in syphilis, salt-rheum and some other skin diseases, dyspeptic conditions, chronic constipation, cirrhotic liver, gastric and intestinal catarrh.
2. *Berberis Vulgaris* (Barberry). Natural order, Berberidaceæ. Constituents, berberine, berbamine, oxycanthine. Properties, tonic, alterative, laxative. Uses, in relaxed conditions wherever a tonic is indicated; in jaundice, chronic diarrhea and dysentery, and intestinal dyspepsia; as a wash in sore mouth; in chronic ophthalmia.
3. *Coptis Trifolia* (Goldthread). Natural order, Ranunculaceæ. Constituents, berberine, coptine. Properties, tonic and local stimulant. Uses, internally, as a general tonic and stomachic; locally, as a gargle or mouth-wash in the sore mouth of children and the nursing sore mouth of mothers.
4. *Frasera Carolinensis* (American Columbo). Natural order, Gentianaceæ. Constituents, berberine, tannin, resin. Properties, a simple tonic. Uses, wherever such action is desired.
5. *Hydrastis Canadensis* (Golden Seal). Natural order, Ranunculaceæ. Constituents, berberine, hydrastine, canadine. Properties, tonic and antiscorbutic. Uses, as a simple bitter and general tonic, and in all catarrhal conditions of mucous membranes.
6. *Fraxinus Americana* (Elder-leaved Ash). Natural order, Oleaceæ. Constituents, berberine, resin, and minute quantities of tannin and a volatile oil. Properties, tonic and astringent. Uses, internally, as an astringent tonic; locally, in salt-rheum and other skin diseases.
7. *Jateorhiza Palmata* (Calumba or Columbo). Natural order, Menispermaceæ. Constituents, berberine, calumbin, columbine. Properties, a pure bitter tonic. Uses, in dyspepsia, diarrhea, dysentery; in convalescence from fevers; also wherever there is an enfeebled stomach with indigestion.
8. *Menispermum Canadense* (Yellow Parnassia). Natural order, Menispermaceæ. Constituents, berberine, menispermine. Properties, tonic, alterative, laxative, diuretic. Uses, in glandular troubles, dyspepsia, general debility, rheumatic and syphilitic disorders.
9. *Xanthorrhiza Apiifolia* (Shrub Yellow-root). Natural order, Ranunculaceæ. Constituents, berberine (no others stated). Properties, a pure bitter tonic. Uses, wherever a tonic action is desired.
10. *Xanthoxylum Americanum* (Prickly Ash). Natural order, Rutaceæ. Constituents, berberine, xanthoxylin. Properties, aromatic bitter tonic, sialagog, diaphoretic, emmenagog, diuretic. Uses, in chronic rheumatism, myalgia, jaundice from catarrh of the bile-ducts, dropsy, chronic pharyngitis.

The above is not a complete list of the berberine-bearing plants, as there are several others which are known to contain berberine, besides in all probability many others whose constituents are not yet well understood. These are, however, the best-known and typical plants which contain berberine in sufficient quantity to make it their most important and characteristic ingredient. In some others, like *podophyllum peltatum* and *jeffersonia diphylla*, the amount of berberine is small, and its effects are mostly overshadowed by other and more important constituents, so that the plants as a whole are of use chiefly for other purposes than for the berberine which they contain.

With the exceptions above alluded to, all the berberine-bearing plants possess the same general characteristics or medicinal properties, namely, tonic, alterative, and antiscorbutic. The several modifications of these properties, and the numerous slight differences in their actions and uses, are in every case due to the other constituents which are added to berberine, thus imparting different qualities to it as a whole.

In studying the arbutin-bearing plants, we find that all of them belong to one natural order, namely, the Ericaceæ, or Heathworts. This is not paralleled by the berberine-bearing plants, as the ten which we have mentioned are distributed among six natural orders. In other words, berberine is a much more widely distributed alkaloid than is arbutin.

Professor John Uri Lloyd has stated that berberine is usually, if not always, accompanied by a white alkaloid, of which hydrastine is a good representative. Let us see whether the truth of this observation is borne out by the examples which have been given. In *berberis aquifolium* and *berberis vulgaris* the accompanying white alkaloid is oxyacanthine; in *coptis* it is coptine; in *hydrastis*, hydrastine; in some of the others there is an accompanying alkaloid, which is not, however, white in color. The rule is evidently not invariable. Very few of nature's laws are without exception.

Notwithstanding the similarities which are found in the properties of these plants, the coexisting differences are such that no one plant can be displaced by any other; and in no case are the properties of the plant strictly those of berberine alone—although some of them are but slightly modified. Each must be studied by itself, each fills a niche of its own. Yet an understanding of each one is helped by a knowledge of all the others.

Berberine stands out by itself. Its properties are peculiar, definite, individual. Its effects are well marked and positive. It should be studied by itself. The other constituents of the plants are to be considered as modifications of berberine. We must now determine these effects by analysis, but when we know the exact composition of all of them, and have studied each of the several constituents as thoroughly as we now have berberine, we shall be able to determine their properties by synthesis.

#### SHUT UP

What's the use of kickin'

In an aimless sort of way?

What's the use of knockin'?

If you've nothin' good to say,

Shut up!

What's the use of talkin'

Of the "good old days gone by?"

There's lots to do preparin'

For them that's drawin' nigh.

Shut up!

What's the use declarin'

That the cards is always stacked,

And that nothin's on the level,

For you know it's not the fact?

Shut up!

Set out an' study laughin',

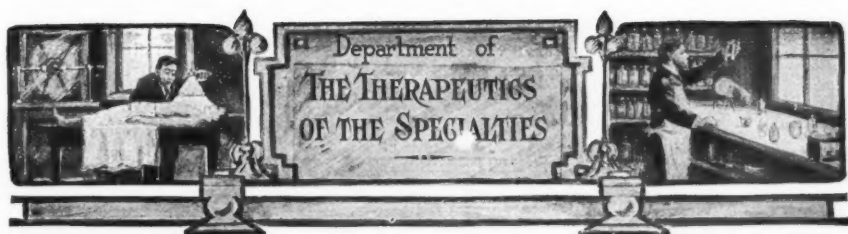
Go on an' learn to smile;

You might even tackle singin'

If you practised for a while—

Tune up!

—JAMES D. HAVERSON



## GANGRENOUS APPENDICITIS

Appendicitis is a surgical disease. The gangrenous form given too little study, yet it is frequent and requires early and energetic treatment. Illustrative cases

By FRANK H. JACKSON, M. D., Houlton, Maine

ACCORDING to Richardson appendicitis is the most important acute abdominal disease of the present day and, with the exception of certain zymotic diseases, it is the cause of more deaths than any other acute abdominal lesion. The latter part of this statement is most significant when one takes into consideration the fact that such a mortality is preventable.

### *Early Knowledge of Appendicitis*

In 1824 the article by Louyer-Villermay established the fact that appendicitis is a disease *per se*, but the medical mind of that time, with few exceptions, refused to accept the truths advanced, and it was not until 1886 that the obscurity regarding the condition was removed by the publication of the classical paper of R. H. Fitz.

Notwithstanding, however, the amount of information that is now at our disposal regarding this most important disease, there still exists a class of men who seemingly will not recognize in appendicitis a surgical condition. To a great extent these men are responsible for the latter part of Richardson's statement. Many of these men pose as "conservatives", while in reality they employ the term as a cloak to cover avarice, dishonesty and ignorance. Loud in their

outcries against "butchery," as they term surgery, by means of opium, calomel and salts, and medicated mud they parade far and wide their ability to "cure" appendicitis. Not until the hypocrisy of their medical hope has ceased to flutter and the patient is moribund, or policy demands that someone be called, so that it might be said "that all was done that was possible," will they call in a consultant. What happens then if in a vain attempt to save a human life an abdominal section is performed and the patient dies? The friends and relatives are quickly informed that it was the "operation" that killed the patient.

With the advent of the well-known paper of Ochsner, advocating delay in certain cases that he took particular pains to specify, the joy of these "internists" was great. Ochsner has been severely criticized, his paper called nonsurgical and he censured because by his advice men have been encouraged to delay or advise operating. The fact is evident that Ochsner cannot be blamed because men will not use common sense or do not possess the average amount of human intelligence.

### *Gangrenous Appendicitis not Studied Enough*

The various textbooks on surgery, in their articles on appendicitis, have not

given to the gangrenous type of the disease the amount of consideration that it deserves. This fact is unfortunate as this form certainly is one of the most serious that we have to deal with and will, unless properly treated, cause the death of the patient.

If we consider briefly the anatomy of the appendix we are at once impressed with the fact that it is a point of least resistance in many ways. About the only point of consistency is its origin from the cecum, which is from the junction of the longitudinal bands, this point being in the majority of cases on the mesioposterior aspect of this portion of the gut. The distal end is more or less limited in its movements by the mesentery which is somewhat triangular in shape. The main blood-supply is from the appendical artery which usually runs along the free border of the mesentery and giving off in its course from three to five terminal branches. The appendical artery is responsible for the existence of the mesentery, and the position that it occupies in this structure is important. If instead of running along the free border it approaches the appendix we have a shortening of the free margin.

As Howard Kelly has shown there is greater liability to twists and angulations if the mesenteric border is short, and with the twists and angulations comes the liability of interference with the blood-supply. The terminations of the branches of the main artery in the mucosa are so situated that they are very susceptible to pressure and this is often brought about by fecal concretions.

#### *Significance of Appendicular Colic*

Much has been said regarding appendicular colic and this diagnosis often satisfies some men, but it is well to consider whether the muscular coats of the appendix have peristaltic power sufficient to be of value in expelling foreign material from the lumen of the tube. Kramer of Cincinnati is convinced after careful experiments on the living subject that the peristalsis in the appendix is either lacking or else insuffi-

cient to be of much value. I have never been able to elicit the peristaltic wave by slightly tapping this portion of the gut when the abdomen has been opened for other trouble and the appendix appeared normal. Hurdon, however, in some very interesting experiments with rabbits, obtained results that cause him to believe that the appendix has power of some movement.

We must remember however that the appendix in man is a vestigial remnant and the experiments in animals have not the same value, as it is well known that in some animals the appendix has some function. The glands of the mucous membrane are imbedded in lymphoid tissue and in some instances we find the same follicular arrangement as in the large intestine. Lymphoid tissue is especially vulnerable and for this reason we probably have the gangrenous form more frequently in children and young people.

#### *What is the Nature of Gangrene?*

Gangrene is a septic, moist process and one that, once started, is incapable of undergoing resolution. There is death to the part affected, and if this part is, by chance, any portion of the intestinal canal, death results unless proper measures for relief are instituted. In the cases of gangrenous appendicitis which I have seen the tissues seemed to lack reactionary power; hence there were few or no limiting adhesions. For various reasons, then, the so-called "expectant" method of treating gangrenous disease of the appendix has many factors to be reckoned with that may overbalance the benefits to be gained by waiting for a more favorable time for operation.

In the first place, a more favorable time may not come and the day that we, in our own minds, plan to operate may witness a funeral. We are unable to tell that the limiting adhesions will form and that if they do that they will completely wall off the rest of the peritoneal cavity. If present, this new tissue is easily destroyed, secondary noncommunicating abscesses may form,

diffuse septic peritonitis may occur by the bacteria penetrating the weak, limiting wall. Pyemic abscesses may form in any important viscus; and, lulled by a false sense of security, we may believe our patient to be doing well when in reality he may be rapidly approaching death.

#### *When Not to Operate*

In a paper in *Colorado Medicine*, on "When Not to Operate on Appendicitis," H. G. Wetherill of Denver discusses a very interesting case. The case was seen by Wetherill in consultation and vividly illustrates what is usually the outcome in these malignant forms of appendix-disease if improperly treated. "The patient was dying though he had been ill a little less than four days. The necropsy showed a perforated, gangrenous appendix and a belly full of pus that had been purged from the small intestine by calomel and podophyllin. Fasting and lavage, no purges and a little opium would have promoted the limiting process and an encysted abscess would have formed that might have been opened successfully on or about the seventh day." I fail to see how this could be and I believe the opportunity was lost when the first man who saw the case did not advise operation at once. Wetherill compares these cases to typhoid perforations, and rightly so, and says they should be operated upon within forty-eight hours, but after the lapse of that time the expectant method will save more lives. With all due respect to Dr. Wetherill's opinion, I am convinced that when a patient is about to or actually is defecating into his peritoneal cavity the sooner someone interferes with such a manifestly unsanitary procedure the better it will be for the patient.

In *The Journal of the American Medical Association* for December 16, 1906, Kahn of Leadville, Colo., brings to attention a very important symptom. In a paper entitled "Bradycardia in Appendicitis" he remarks upon the latency and often misleading symptoms of gangrene of the appendix and calls especial attention to the

pulse. He says that he cannot recall a case of appendicitis in which he encountered bradycardia that did not present gangrene. The last six cases of gangrenous disease of the appendix that I have seen have all presented this symptom, and although no one symptom or group of symptoms can be called absolutely pathognomonic of gangrene of the appendix we do have in a great many cases a certain *tout ensemble* that points to this condition. Certain points have impressed me with diagnostic importance and I offer them for what they are worth, believing that any help in the diagnosis of this malignant type of appendix-disease is worthy of emphasis.

#### *The Previous History of the Case*

The previous history of any case showing symptoms of appendix-disease is very important and should not be neglected. The previous history often discloses that the patient has at times suffered from attacks of pain, or if not pain, severe discomfort in the epigastrium which usually became referred to the right iliac region; that following the attack, which we can for convenience' sake call the primary one, the patient has noticed at times a feeling of discomfort in the right iliac region which I have heard described "as if there was a lot of gas in a small place that couldn't get out;" that this discomfort and often some pain became more troublesome after the ingestion of a hearty meal or the bowels were constipated; that the bowels were usually sluggish and that cathartics were used habitually; and finally, that the attack requiring operation started in with a terrific pain that came on suddenly.

With children I have found it difficult to get the admission that they ever had any pain after the first attack which the mother usually knows about. Children are liable (especially in the case of boys who dislike medicine) to say little or nothing about any pain that may occur, but I have found that this pain is often brought about by severe exercise and that to overcome the difficulty children will apply pressure by their hands as this seems to afford some



relief. One boy whom I helped operate upon was in the habit of riding his bicycle at a furious clip as this, he said, stopped the pain.

#### *The Significance of Pain*

Abdominal pain is one of the most important symptoms of disease of the appendix. It is so regarded by anyone who has any experience with the disease and nowadays the laity look with suspicion upon any pain in the right side of the abdomen. The pain in the cases of gangrene that I have seen came on suddenly; it was agonizing in character and was usually described as starting in the pit of the stomach and then going to the right side; while in the cases complicated by perforation there was a sudden cessation of the pain and then it did not appear again until the beginning of the general peritonitis.

Robert T. Morris has called attention to a "pair of points" which have reference to the lumbar ganglia, an inch on either side of the navel. If the trouble in the abdomen is from the appendix, pressure on the right ganglion will cause pain; on the other hand, if the trouble is from some pelvic irritation both ganglia would be sensitive. This fact is important and I have seen several cases in which pressure over the appendix showed a point which was only moderately tender while over the right ganglion it was exceedingly so. I have had the opportunity to try this test in some cases of severe gangrenous disease and it was absolutely positive, so it is worth remembering in time of trouble.

#### *Temperature and Pulse*

We are so accustomed to look for high temperatures that we are liable to be misled in a case in which the temperature is low. The fact is, in gangrene we may, and often do, have a temperature that is subnormal. It may remain so or not go over 100°F. and still the condition in the abdomen be most desperate. With the advent of a general peritonitis we may get a rise in the fever, but the man who

will not advise operation because the patient does not show a high temperature will often err.

Changes in the pulse are most important and often solve the problem. As Kahn says, tachycardia is often seen in gangrene of the appendix, but given the unmistakable signs of appendix-disease with a slow, irregular and weak pulse, we have one of the most certain symptoms of gangrene. The examining finger cannot mistake this pulse. It is as characteristic as the high bounding one met with in the sthenic cases of pneumonia and when present should be carefully weighed.

#### *The Facies of Appendicitis*

We hear of the typhoid face and others, and this, as one writer says, might be poetically expressed as the "index of the agony of the soul." It is better surgically to regard the same as an index of the amount of sewage that is being absorbed by the body-cells. The way that it expresses itself to me is that the patient looks poisoned. There may be a slight jaundice, the eyes look glassy, the tongue is coated and the breath foul—in short there are present all the symptoms of "autoinfection."

The reporting of a lot of cases is tiresome; so the appended few are to direct attention, in actual cases, to some of the points offered in the paper.

Case 1. H. B., musician. History: For past two years has been troubled with more or less indigestion and constipation. Has had several attacks of pain that became localized in the right iliac region but thought that it was part of the indigestion. The past few months has had the feeling as though there was a small "gas bag" in the region of the appendix. Present illness: Began about three days ago with terrific pain in the epigastrium. There was nausea and he vomited once or twice. The bowels were constipated. The pain was referred in a few hours to the right iliac region. Was treated by two physicians for "stomach trouble." Walked into my office and said that although he had had a great deal of pain it was some easier but that he couldn't

stand up straight. Examination: Abdomen distended, right rectus board-like in rigidity, pain on pressure over McBurney's point. Temperature 100°F., pulse 70, weak and a little irregular.

Operation advised and a diagnosis of a walled-off, purulent appendicitis made. Operation: Ether anesthesia, gridiron incision. On opening the peritoneum a large amount of foul-smelling fecal matter poured into the wound. The examining finger showed few limiting adhesions and the area surrounding the appendix was walled off with gauze wet in saline fluid. The fecal matter was carefully removed and the appendix could be seen entirely gangrenous, with a large perforation opposite the mesenteric border and containing a large fecal concretion. The gangrene extended to the cecum and the outlook for the patient was not encouraging. The appendix was removed and the gangrenous spot on the cecum excised and turned in with a double stitch. The ligature on the mesoappendix would not hold, and as this structure was twisted twice on its own axis and was very edematous, it was thought best to leave the hemostats in the abdomen. This was done and the wound partially closed, with drainage. The condition of the patient was good and beyond an enema of hot saline he received no medication. The clamps were removed in thirty-six hours and the drains were filled with material of a fecal odor: the drains were fulfilling their purpose and were not removed until the third day. They were then removed and the wound filled with a 50-percent solution of enzymol and fresh drainage inserted. The farther treatment is of no import. The fistula closed about the tenth day and after the beginning the use of enzymol there was never any odor. The patient was discharged well in four weeks and when last heard from was in perfect health.

#### *Another Interesting Case*

Case 2. S. W., age 17, was seen through the kindness of Dr. H. L. Putnam of Houlton. History: Always well. During the

past year has had attacks of pain in his right side. Never consulted a physician for the same.

Present illness: Had not been feeling well for past few days. Bowels were constipated. Was taken suddenly with a most severe pain in the epigastrium. Referred to the right side in a few hours. Did not call Dr. Putnam until some thirty-six hours later. Pain was so severe that patient cried out with distress. Dr. Putnam saw the case and advised immediate operation. I saw the boy with him about three hours later and found the following: Temperature 99, pulse running from 80 to 90, weak and intermittent, abdomen distended and absolutely rigid on the right side. Patient vomiting, face was a dirty, yellow color and breath foul.

Operation: Ether, gridiron incision. Appendix gangrenous and ruptured and no adhesions. Entire fossa bathed with fecal matter and pus. Fecal matter removed by sponging and appendix removed and stump inverted. The head of the cecum looked dark but was alive. Drains in sub-hepatic space, both sides and under colon and into pelvis. Wound partially closed and patient put to bed in Fowler position. The next day the pulse was normal in rate and quality. The bowels were moved on the second day by an enema of turpentine, glycerin, saturated solution of magnesium sulphate and hot saline. Discharge profuse in amount and fecal in character. Fifty percent enzymol used and the odor and amount of discharge improved in twenty-four hours. Fistula closed the tenth day and convalescence was complete by the end of the fourth week. Patient today in perfect health.

Case 3. H. S., age 17, was seen through the kindness of Dr. H. L. Putnam. History: For the past year has had several attacks of pain in right iliac region. Attacks were accompanied by constipation and vomiting. Right side has been more or less tender since first attack.

Present illness: Began forty-eight hours before he was seen by Dr. Putnam. Patient was working in a saw-mill some thirty

miles from Houlton and did not come home until he had been sick some two days. The attack started with severe abdominal pain which was soon localized in the region of the appendix. He vomited a great deal and suffered from intense headache. His bowels had not moved for two days, so he took a large dose of "salts" with fair result. When I saw the case the following symptoms were present; Temperature 99° F., pulse 100 and poor in quality, skin was jaundiced, tongue coated and breath foul, abdomen flat. The right side was rigid but there was little or no tenderness over McBurney's point. The right lumbar ganglion was sensitive.

Operation: The incision was the grid-iron and ether was the anesthetic. The appendix was gangrenous and there were no limiting adhesions. The right fossa was walled off with gauze and although every attempt was made to remove the appendix without rupturing it I was unable to do so. Its stump was inverted and the wound closed as it was thought that the packing had prevented any contamination of the peritoneum. I was in error here as I was obliged to reopen the lower angle of the wound on the fourth day. About an ounce of foul-smelling pus with a fecal odor was removed and drains were inserted. In this case I again used enzymol and with seemingly good results as the foul odor ceased after beginning it and the fistula closed about the sixth day. Convalescence after this was soon established and the patient is now in perfect health.

#### *Treated by "Christian Science"*

Case 4. This case is one that is of more than the usual amount of interest and shows what the ignorance of so-called "Christian Science" will do. The patient was 16 years of age and was attending school in Houlton.

History: About a year before the present attack he suffered from an attack of severe pain in the lower right part of the abdomen which he said the doctor that attended him said was indigestion. The pain was so

severe that he was in bed for four days and did not get about until some two weeks. He has had several attacks since but not so severe as the first. In the intervals between the attacks he has suffered from a feeling of gas in the right iliac region and has had to use cathartics daily.

Present illness: Began suddenly with severe pain in the epigastrium which was soon localized in the right side. I saw him in about twelve hours. He was nauseated but did not vomit. Dr. C. E. Williams kindly saw the case with me and the following set of symptoms was found: Temperature 97.8° F., pulse 60, intermittent and decidedly weak. The abdomen was slightly distended and there was marked tenderness an inch below and to the inner side of McBurney's point. The right lumbar ganglion was also extremely sensitive. The boy's parents were reached and immediate operation was advised. The boy absolutely refused to submit as "he knew he didn't have appendicitis and that his folks did not believe in such stuff." His parents arrived the next morning and after talking it over with their wise son plainly told me that I was trying to operate when it was not needed. I advised them in the face of such talk to have someone else see the boy, but to no avail. The boy was then removed contrary to advice and given a huge dose of "salts" and a hearty meal. He went into collapse in a few hours and another physician was called, who operated. I did not have the opportunity to be present at the operation but was informed afterward that the case was one of ruptured gangrenous appendicitis. The boy lived and his parents are doubtless convinced that there is such a disease as appendicitis.

#### *Conclusions*

Gangrenous appendicitis is absolutely a surgical condition and must be treated as such. According to my limited experience early operation offers the best prognosis. The symptoms are often misleading and each case must be considered on its own merits.

# THE PREGNANT AND PARTURIENT WOMAN

A paper read before The Champaign County,  
(Illinois) Medical Society, giving an outline of  
methods for the care of the childbearing woman

By HALFORD J. MORLAN, M. D., Ludlow, Illinois

UPON this subject, the care of the pregnant woman and her management during a normal labor, one could compile statistics so profuse as to make it burdensome to the listener and a thief of valuable time. Too much of anything is a detriment. I have, therefore, endeavored to be as brief as is consistent with so important a subject.

*Statistics.*—Edgar, of New York, says, in relation to the mortality of the newly born: "These various conditions of the fetus and newly born must be carefully considered, because many of them are not only capable of producing death independently of predisposition but are doubtless largely preventable."

The mortality from various causes this same author gives as follows: "Antenatal conditions, congenital debility, diseases and malformations, 25 percent; fetal and maternal dystocia, intrapartum conditions, 25 percent; interruption of pregnancy, 43 percent; sepsis, or postpartum infection, 7 percent." Hypes, of St. Louis, is authority for the statement that "of all women who die of any disease, between the ages of 20 and 50, (the so-called child-bearing period) 7 percent die of puerperal septicemia."

Is it not appalling to have such statistics confront us when we think of the etiology? If any of our patients have added to those statistics let us consider seriously the welfare of those we may treat in the future.

*Development.*—A French obstetrician has called pregnancy a "nine-months disease." But it is a natural, a physiological function in a natural state of health, accomplished without disease and with little suffering. Yet it isn't surprising to learn that woman in this condition suffers when one considers her habits, environment and the rapid development of her physical nature. Under

no other circumstances do so extensive changes in organs and functions take place in so short a time. In the comparatively slow and few modifications which occur during the development of the girl into womanhood we observe her not only suffering pain but find her especially liable to many and severe diseases. Again, at the climacteric do we find woman disturbed in her functions and prone to all sorts of affections. No wonder, then, that she suffers when undergoing the cyclonic changes of pregnancy. And yet she is ridiculed for complaining, and a deaf ear often is turned to her entreaties for help to bear this most uncomfortable burden.

*Lack of Sympathy.*—At no other time does woman so yearn for help and sympathy as she does during pregnancy. And likewise there is no time when she so deserves it and common sense, humanity and justice demand that she have that which she so much desires and which is so easily given.

We are told, "Man's inhumanity to man makes countless thousands mourn." But I say, the inhumanity and incompetency displayed by some physicians in the care of pregnant and parturient women causes the babe to suffer and die, makes the youth an orphan, the young man a vagabond, the mother a pauper (or corpse), the man a beast, the athlete a cripple, the philosopher a lunatic, the virgin a harlot, despoils and depraves the profession, and all nations are caused to mourn. For when the mother-guardian is removed from the home of a dozen helpless children, they are, in too many cases, doomed to destruction, morally, mentally and physically, and one may say, almost regardless of their age. Every doctor must learn to be patient, kind, sympathetic and courteous to the mothers of men.

In their disturbed and hypersensitive condition of mind and body, how readily the overworked organs pass the boundary line from exaggerated physiological function to a pathological condition; and how often we find the latent or mild forms of disease, especially of nervous system, kidney or heart, slowly and insidiously developing most dangerous and uncontrollable symptoms.

It is our duty, by proper care and management, to lessen and in some cases entirely relieve the manifold discomforts of pregnancy. Women, then, during pregnancy should be permitted to realize as nearly as possible their Utopia of an earthly existence. Their every thought, deed and action should be pure and entirely free from all depressing influences. We should try to supply them with good books, pleasant scenes, congenial companions, an abundance of palatable nutritious food, together with plenty of sunshine and fresh air to invigorate them. It is peremptory that they be well nourished morally and mentally as well as physically.

*Education Needed by Physicians and Laity.*

—Observation and experience lead us to infer that the field of obstetrical practice needs cultivation by us as physicians, and the laity need education on the importance of caring for woman during pregnancy, not only for her own sake but, as Plato has expressed it, "that she may successfully bear children to the state." Holmes said, "A child's education begins one hundred years before it is born." If this be true (and it is to a great extent, for blood must surely tell) then we should begin now if our descendants are to enjoy the fruits of our labors.

*Hygiene.*—Our girls should be educated and trained not only in the way they should go but have such care, training and education as will properly fit them for the noble and responsible duty of a future mother. We should teach them the laws of hygiene, the value of fresh air, how to eat, to exercise, to dress, to study, to work, to care for their bodies and minds in order to develop into and remain healthy women. As family physician, member of the board of health or the board of education or adviser thereto, as

public legislator or officer, let us look after the hygienic conditions of factories, schools, workshops, stores, the homes and other places of employment. Women should be taught when they suspect pregnancy to select at once an attendant physician and place themselves under his direction and management; not that they may be dosed with drugs, but that they may receive advice and instructions relative to duties and dangers consequent upon pregnancy, and that their physician may gain such knowledge of them as will aid him to manage successfully both their pregnancy and labor.

When a physician assumes charge of a case he should familiarize himself with the patient's personal and family history, including previous diseases, accidents and previous labors, if any. He should also learn the family peculiarities and idiosyncrasies so that he may properly instruct the patient and direct her medication. As to food, she should be instructed regarding its character, preparation and amount; as to bathing and how performed; as to clothing, its makeup and mode of wearing; as to the dangers of constipation and means of prevention; as to the bad effects of coitus and necessity of its control; as to the care of the breast, especially the nipples; and most important of all, the absolute necessity of urine examination, especially after the sixth month. Grave accidents often are precipitated because someone knew not the signal of danger.

*Advice for the Mother.*—The pregnant woman, therefore, should be instructed to inform her physician as soon as she has any of the following symptoms: abdominal pains, flow of blood from the vagina, persistent headache or dizziness, disturbance of vision, epigastric pains, nausea and vomiting late in pregnancy, of the first appearance of edema. She should be instructed not to lift heavy weights nor to extend herself by far-reaching or overexertion, neither should she fatigue herself or indulge in any long, tiresome journeys or rough rides over bad roads.

At the seventh month she should submit to a thorough examination and the position and presentation of the fetus should be de-



terminated, as also any serious abnormality which might complicate labor and pregnancy, and that the physician may be prepared to render her timely attention to all disorders and she be made comfortable and possible serious consequences averted.

A physician's presence is required in every case, normal or abnormal. Why? It is to watch for dangerous delays to mother and child, to protect the perineum, to see that the secundines are all expelled, to prevent postpartum hemorrhage, to assist when nature fails, to anticipate and be prepared to treat most successfully any emergencies that may arise, to check them in their incipency if possible, in short, to prevent all evil consequences both to mother and child.

Thorough acquaintance with the woman and properly directed treatment, both before and during pregnancy, will check this great stream of abortions to which we are almost daily called to administer. And puerperal eclampsia, that dire calamity of child-bearing, is a preventable disease (usually) and will almost disappear from records when women are properly cared for during pregnancy.

The brilliant surgical and obstetrical records of the maternity hospitals are due largely to the fact that women are under observation, abnormalities are diagnosed during pregnancy, and because the most favorable time for operation is taken advantage of.

*Preparation.*—As to the management of a normal case of labor, we should first consider the preparation, which should be equally as thorough as for any major operation. One should not wear rubber gloves and neglect a gown as some do; but after removing all superfluous clothing, manicuring nails and trimming them close, prepare the hands and arms to above the elbow, then be particularly careful to put on a sterile gown; it is one of the first essentials. Gloves also should be worn.

*Solutions.*—Have ready hot and cold sterile water, and all vessels to be used should first be scalded and then scrubbed with a bichloride solution (1 : 500 to 1 : 1000) before using in the lying-in chamber. It is essential also to prepare scissors, perineal

needle, gauze, cotton, dressings for mother and child, sutures, ligatures, sponges, and towels. It is also important to see that the bed is properly prepared, the bed-clothing is clean and all things connected therewith are a like condition, especially the sheets.

*Preparation of Patient.*—The patient at this time should be undergoing the preparatory changes, assisted by the nurse or someone of the women present—and we might add right here, that this is no curiosity shop, and all persons not actually required in attendance should be peremptorily but politely dismissed.

*Antepartum Douche.*—A bath should be given, but not a tub-bath; a sponge- or shower-bath is much preferred, especially the latter if followed, as it should be, by a brisk rub. The danger of the tub-bath is that of infection, the nipples and vagina being bathed in water laden with body filth. The antepartum douche, if given, is now in order, but I neither use nor advise it.

The doctor must always see to it that the bladder is empty (or to empty it), and if the bowels have not been thoroughly evacuated, should give an enema. In fact it is good practice to give it in every case, regardless of bowel-movements, and for this purpose a quart of soap-suds with the addition of a little glycerin makes an ideal solution. The external genitals should be cleansed with sterile gauze or cotton, using a 1-percent to 2-percent solution of lysol, or a solution of bichloride of mercury (1 : 2000); and they should be kept clean by the application of a sterile towel wrung out of the solution used for cleansing the parts.

When all else is in readiness the patient is to be placed on the bed in dorsal position, clothed only in her night-dress and with a sheet covering the extremities. This sheet should be arranged so that the center, with a few twists in it, will lie directly over the pubes, with each end spread out over a leg. This occasions little exposure yet will permit of examination with the genitals in full view, and is the only proper way to make an examination or pass a catheter.

*Examination.*—First the external and then the internal examinations are made. A great

many things are, and should be, noted. However, the principal ones to determine are whether or not the fetus is alive, its position and presentation; whether any abnormalities are present, and if so, their consequence; the stage of labor; strength duration and frequency of uterine contractions; presence or absence of amniotic fluid; condition of the os and its position in the pelvis; size of fetal head in relation to pelvis; character and frequency of heart-sounds; condition of bladder; amount of lubricating fluid. As many subsequent examinations as required are certainly permissible, but two should usually suffice.

At the beginning of the second stage of labor the patient is placed in the dorsal position, as preferred. If the pains lack strength or duration, the patient may properly be permitted to sit on the edge of the bed or a chair or should receive the assistance afforded by some one of the various means whereby the muscles are allowed to become fixed and a concentrated action thereby is obtained. If the pains are too strong or too frequent a few whiffs of chloroform will be found efficacious.

*Rupture of Membranes.*—After the bag of water has performed its full purpose, it may often be judicious to rupture the membrane, but the correctness of the supposition that the os is dilated must be assured lest one's efforts result in a dry, tedious and disastrous labor.

*Perineum.*—The perineum should be protected, but not supported, as the term usually implies. The method *par excellence* is to exert pressure on the presenting part, thereby causing a slow expulsion and allowing the tissues ample time to expand and the parts to adjust themselves.

At the end of the second stage of labor, in order to prevent the entrance of air into the open vagina and to indicate the amount of hemorrhage, several folds of gauze are placed over the vagina to remain while attention is directed to the child.

*Kneading of Fundus.*—In the meantime the nurse or husband, properly prepared, is directed to assist the uterine contractions by exerting gentle pressure upon the fundus, or

if required, to use gentle friction. This is done with the object in view of preventing hemorrhage or the formation of an intra-uterine clot.

*Care of Child.*—For a time now attention is turned toward the child particularly to see that its respiration is all right. It should be wrapped in a warm blanket and placed between the mother's thighs, and rest on its right side with its hips elevated to aid the physiological changes in fetal circulation and to prevent cerebral anemia.

When the pulsation in the cord ceases, we strip away the Wharton's jelly and with silk or some other sterile ligature we ligate the cord in two places, the first being about one and one-half inches from the umbilicus. Now sever the cord between the ligatures. If desired, touch the stump with a solution of bichloride, but I omit this procedure. The very plausible reason for ligating the cord in two places is for the protection of the twin, should there be one present, and to retain the blood in the placenta, that it may be more easily expelled.

The eyes are now treated with a 1- to 5-percent solution of protargol, which is preferable to boric acid or silver nitrate and is nonirritating.

The child is then turned over to the nurse or other woman, if one is around, but one should be sure that the one who assumes this charge is not contaminated with any disease, such as eczema, boils, carbuncle or any other disease that might be the means of infecting the baby.

The vernix caseosa is removed with pure olive oil, furnished of course by the physician, and the baby is washed with warm water, using some mild soap, and a soft rag.

The physician should then apply the umbilical dressing, consisting of some mild dusting powder and sterile gauze, with a band just tight enough to hold it in place. The nurse now dresses the baby and "holds it for further orders." It might be well to mention here that I do not approve of the long dresses with which babies are so much annoyed; it is best to have them just long enough to protect the feet and legs and no longer.

*Secundines.*—Our efforts are again directed toward the mother. If she has been assuming the lateral position, during the second stage of labor, at the end of that stage she should be turned carefully to the dorsal, to avoid air embolism. After a delay of a half hour or more, if nature has failed in her efforts to expel the placenta, we assist by Credé's method and without any traction on the cord receive the secundines upon the palm of the right hand. These are now thoroughly examined, to ascertain the amount, if any, of retained placenta, which of course should all be removed at this time. If nature fails, use the fingers as a curet; the steel is not now advisable.

*Perineum.*—The perineum and vagina should now be examined carefully, and any damage by laceration should be repaired. The cervix, if lacerated, may receive attention at a later date, unless the hemorrhage is severe; but one should always bear in mind the inducement a raw surface offers to infection and not delay too long.

As soon as the third stage of labor is completed I think it advisable to administer a dram of the fluid extract of ergot, and this is my own practice in every case. It prevents clots, closes sinuses, guards against infection, and by curtailing blood-supply hastens involution.

*Postpartum Douche.*—This brings me to the discussion of the postpartum douche which has occasioned a great deal of controversy among obstetricians, and as this paper is already too lengthy, I will merely say that when it is used a glass tube with lateral perforations should be employed and care taken that the fluid does not enter the uterine cavity, unless, however, there has been some uterine examination or instrumentation or intrauterine sepsis is suspected. But it has and is my practice not to employ this treatment unless many or prolonged examinations were made.

*Vulvar Dressings.*—The external genitals should now be cleansed with the solution of lysol and bichloride as mentioned. The cleansing should include the thighs, buttocks, abdomen, and so forth. The soiled bed-clothes and night-dress are replaced by fresh

ones. A vulvar dressing of sterile gauze and cotton, either plain or borated, is to be applied. But never should any deodorizing chemicals be used because they would mask the fetor of decomposed lochia, one of the earliest signs of sepsis. Neither do I recommend the frequently used bichloride vulvar dressing because it is too astringent and too irritating.

The vulvar dressing should usually be changed every four hours for two days, varying of course with different patients.

Now with the application of a snug, well-fitting abdominal binder we consider the operation complete and the child is placed beside the mother and permitted to extract as much colostrum as it will. The mother is given a glass of milk or other light nourishment, the room is ventilated, curtains are drawn, visitors excluded and the patient is allowed to go to sleep. If the pulse is 95 or below, the physician may now depart, but should return within twelve hours, and as frequently thereafter as required.

*Subsequent Visits.*—At the subsequent visits the following should be noted: The general condition of the patient; pulse; temperature; respiration; condition of the bladder and bowels; condition of the breast and nipples; condition of the uterus and its position; the amount, character and odor of the lochia; the presence or absence of afterpains, also their severity; condition of external genitals; the diet as to quantity and quality; look after the ventilation; exclude all visitors; see that the dressings are in their proper places and properly applied; note the condition of the bed; the child's pulse, temperature and respiration should be taken, and the proper attention given to the umbilical dressing, bowels, kidneys and eyes. The nose, mouth, stomach, diet and weight should be noted; the skin should be looked after; any colic, restlessness, irritation, sleeplessness or crying that may be present should be investigated. The patient may be permitted to get up to urinate or defecate.

*Afterpains.*—If there are any afterpains the patient is given some chloral hydrate and morphine, remembering the susceptibility of

the child to opium. Or if the pains are caused by the presence of blood-clots in the uterus the fluid extract of ergot may be prescribed.

**Breasts.**—If the breasts are a source of annoyance the discomfort may be relieved by massage and milking them through a piece of hot sterile flannel; however, the breast pump sometimes is called for. Another way to lessen the distension in the breasts, and a method I often employ, is to limit the amount of liquid diet and to drain the system by the use of magnesium sulphate. A saturated solution of boric acid is prescribed to be used upon the breasts before and after nursing. If there are any cracks or fissures a sterile solution of castor oil may be employed with much benefit.

**Bowels.**—At the end of forty-eight hours, if the bowels have not moved, I use the fluid extract of cascara sagrada, or the "evacuant" preparation in three doses to produce effect.

**Diet.**—The diet is allowed as suggested by nature; that is, according to the appetite and gastric tolerance, the only restriction being between the time of delivery and the first bowel-movement, during which period plenty of liquid is advisable in order to aid mammary secretion.

**Position.**—For a few hours after labor the patient should rest without a pillow and the head kept low to guard against cerebral anemia, as also to aid the escaping lochia, the healing of abraded surfaces and closing of uterine sinuses. She should remain quiet, lying upon the back, for the next three days. After this time she should lie upon her side or abdomen (changing her position frequently) in order to facilitate drainage, prevent sacculation or posterior displacements. She should remain in the recumbent position until the uterus has properly undergone the process of involution so far that the fundus disappears behind the pubes. This should determine the time of getting up irrespective of the number of days, but ten will usually suffice. It is needless, perhaps, to say that the patient should remain up only a short time at the first several attempts, but unless they are so instructed women usually will get up and remain up all day, and per-

haps "do a little washing" since "baby's clothes are all so dirty." So one should be sure to instruct them that they must take things by degrees, remaining up a little longer each succeeding day until they are physically capable of doing some light, easy work, and not before the end of thirty days should they attempt any hard work. Of all things we have to contend with in obstetrical practice, this is most often the cause of trouble, because these directions are the most often disobeyed.

**Sequelæ.**—And the rewards they reap for trying to be as smart as the neighbor women (they call it "smart" to get up early) is: a hemorrhage from dislodgings clots from the uterine sinuses, or a thrombus may occur in the veins of the broad ligament with danger of embolism in the heart or lungs; but those most frequently seen and which are responsible for our friend the gynecologist, as well as for most of the prematurely old, broken-down women, are the many and severe forms of displacements of the uterus, together with the improper repairing or healing of lacerations.

It is right here that fingers are pointed at us from all directions, for while women in most cases will be very indiscreet about getting up too soon, yet they are always ready to "pick you to pieces" and perhaps sue you for malpractice if they have not been given all the instructions to which they are entitled, even though they wouldn't follow them. This is one of the reasons why we should always be very particular that they get all that is coming to them.

And now, as a parting warning, permit me to emphasize the fact that the members of our profession are entirely too apathetic about their obstetric practice; too many of them are on a par with the midwives.

[Dr. Morlan has given a very interesting and comprehensive review of this subject, one which should be "A, B, C" to every practising physician. If a little more had been said about the control of the labor pains by methods just now coming into vogue (and which promise so much) the discussion certainly would have been complete.—ED.]

## == SURGICAL THERAPEUTICS ==

### RESECTION OF THE PANCREAS

When a tumor of the pancreas is found to be nonmalignant it may be removed just as would be any other intraabdominal growth, even resection of the pancreas being practicable. In some instances of cystic growth it is advisable to remove as much of the tumor as possible, suture the remainder to the parietal peritoneum and pack, with the hope of securing obliteration by adhesive inflammation or closure by granulation. But surgeons are more and more inclining to resection in spite of the almost inaccessible location of the pancreas and its close relation to the great vessels: vena cava, portal vein, abdominal aorta, superior mesenteric vessels and the pancreatic-duodenal blood-supply. The danger of diabetes and of disturbances of digestion is not so great as that of the incised surfaces being so affected by the escaping pancreatic fluid that healing is impossible—the pancreas differing greatly in this respect from the liver, kidney or spleen. On account of this tendency greatest care must be exercised in so placing the gauze drains that if overflow occur soiling of peritoneum will be reduced to the minimum.

### DEATH FROM HYDROGEN DIOXIDE

Those who use hydrogen dioxide freely in purulent and inflammatory conditions should be very careful about injecting it into the uterus. Bretanno (*Annales de Gynecologie et d'Obstetrique*, Paris, January, 1908), reports a death from such use. For puerperal endometritis an intrauterine injection was given of solution of hydrogen dioxide diluted one-half. Suddenly the patient complained of intense pain in the lower abdomen, followed by nausea, intense dyspnea and a syncopal condition while the abdomen became rapidly distended with gas. Perforation of the uterus was assumed and the organ was removed by abdominal section, but the

patient rapidly succumbed. The uterus was found intact but filled with foam, and the ligaments were covered with bubbles resembling those made by blowing into soapy water through a tube. These bubbles extended into the epigastrium and across to the right iliac fossa. There was no sign of hemorrhage or effusion.

### GASTRIC CARCINOMA

No one doing abdominal section should fail to explain to every doctor interested that cancer of the stomach is a very favorable disease for operation if the surgical treatment can be instituted early enough. Every suspicious case should have the benefit of repeated examination of the stomach-contents, especially after Bourget's test-meal. This meal consists of bread, meat, and eight to ten cooked plums (or prunes) at 8 p. m., and at 8 the next morning the stomach is carefully washed out. Unless there be gastric retention no food-remains will be found in the washing. Nyrop declares the rule that "everyone who has chronic stomach-trouble should be given plums, and that if these plums or parts of them can be recovered by the tube in twelve hours, section should be performed" is subject to so few exceptions as to make it a safe and wise working rule. If in addition there is marked diminution of hydrochloric acid there should be no hesitation about insisting upon surgical measures. Even if the patient is not seen until after a tumor can be felt, there is hope of cure in some cases.

### MALIGNANT GROWTHS ON SPERMATIC CORD

Cancerous tumors of the spermatic cord are extremely rare. They are of the connective-tissue type—sarcoma of either round-cell, fusiform or giant-cell variety—or more often mixed; the sarcomatous elements being



in intimate association with fat and cartilage. In some cases the tumor is of extremely slow growth up to a certain point, then a sudden evolution of malignant development. This has led to the belief that the tumor originally is a lipoma or other benign growth which suddenly undergoes a malignant degeneration. A few cases of epithelioma of the cord have been reported—originating in embryonic debris of the Wolffian body. Both classes affect the scrotal portion of the cord almost exclusively, though inguinal or retroinguinal segments have not altogether escaped. The intrafunicular connective tissue alone may be involved, or the duct itself may be the point of original implication, as may also one of the vessels, or the loose perifunicular connective tissue may be the starting point. If seen when small there is good hope of perfect cure by early removal, the cord being followed well into the inguinal canal and section made as near the internal ring as possible, and the testicle removed with the cord. When the tumor has reached the enormous size it sometimes attains ablation followed by x-radiance should be strenuously urged.

#### CURE OF BUNION

There is but one cure of hallux valgus: excision. The best operation is a curved incision with base downward over the metatarsophalangeal joint, preserving the bursa, removal of the head of the metatarsal bone with its bunion, turning in of the bursa over the bone to make an articulating surface for the phalanx and closure with catgut drainage. The foot must not be used for three weeks, to secure the best results.

#### AN ADHERENT OINTMENT

Sometimes an ointment is desired which will be slightly irritating and one which will of itself adhere to the skin. Such a one, which can only be removed by the use of oil or soap, has this formula:

Ol. cadini.....	24.0 (drs. 6)
Talci .....	8.0 (drs. 2)
Zinci oxidi .....	32.0 (oz. 1)

The preparation entails a lengthy trituration. For the patient the application is much more agreeable than that of oil of cade in the form of glycerole. It is not so dark-colored and does not soil linen. Owing to its adherent property, it does not require to be renewed every day; a fresh application need be made only every other day.

#### FETID LEUCORRHEA

When the vaginal discharge is particularly offensive in odor this may be ordered:

Potassium chlorate..	12.0 (drs. 3)
Wine opium.....	8.0 (drs. 2)
Tar water.....	300.0 (ozs. 10)
Vinegar, white .....	300.0 (ozs. 10)
Tincture eucalyptus.	48.0 (ozs. 1½)
Salicylic acid.....	20.0 (drs. 5)

Directions: Two or 3 tablespoonfuls to the liter (quart) of hot water; to be used as a douche two or three times a day.

#### TUBERCULOUS FISTULÆ

Emil Beck, of Chicago, has found that injection into a sinus or fistula of an emulsion of bismuth not only renders it possible to get an x-ray photograph of the canal but that, if the walls be first curetted, the injection materially hastens recovery. For purposes of diagnosis only this formula is used:

Bismuth subnitrate ..	32.0 (ozs. 2)
Petrolatum, white ...	64.0 (oz. 1)

For the curative injection this paste is employed:

Bismuth subnitrate..	32.0 (oz. 1)
Petrolatum, white ..	64.0 (ozs. 2)
Paraffin, soft .....	5.0 (oz. 1-6)
Lard .....	5.0 (oz. 1-6)

This is thoroughly triturated in a sterile mortar, and heated for injection; or, better, it may be mixed over a slow fire at the time of treatment and injected while still fluid. As much as possible is to be retained in the sinus.

#### SUBPHRENIC ABSCESS IN APPENDICITIS

When drainage of a perityphlitic (appendical) abscess is not sufficiently free, when

it is not instituted early enough, and when some undiscovered pocket of pus is left unopen, an abscess may form beneath the diaphragm: subphrenic abscess. As soon as recognized, the secondary deposit of pus must be cleaned out. One of five routes must be chosen, viz: (1) An incision in the epigastrium; (2) by an incision along the costal arch; (3) by an incision in the lumbar region; (4) by the transpleural route; (5) by pushing the pleural reflection upward and opening the abscess-cavity through an incision in the diaphragm without opening the pleural cavity.

The first three methods are indicated when there is bulging in the epigastrium along the costal arch or in the lumbar region. A simple incision will suffice to evacuate the abscess. If, however, suppuration continues and septic symptoms reappear, it indicates either an accompanying empyema or insufficient drainage, or, finally, a persistence of the original focus. Such conditions require considerably more extensive operations. Whenever this is possible, evacuation of the abscess cavity should be secured without involving the pleura.

## GENITOURINARY THERAPEUTICS

### IS REINFECTION WITH SYPHILIS POSSIBLE?

It is not pleasant to uproot opinions which have become to be considered as true as the eternal verities. But the truth above all, and if a long cherished opinion is proven to have been wrong, go it must. For many, many years it has been considered that infection with syphilis confers immunity against any further attacks. In fact this has been considered a fundamental law and has been incorporated in all text books. The text-books recognize three kinds of immunity: (1) the direct acquisition of the disease—acquired syphilis; (2) inheriting the disease—hereditary syphilis (Profeta's law) and (3) bearing a syphilitic child, even without the mother showing any lesions of syphilis (Colles' law). During the last few years, however, when every dictum and "law" has been put under a searchlight and independent analysis, several cases of reinfection with syphilis have been reported. We still must admit that the authentic cases are few and far between, but that they are possible it is important that the physician should know. For not to admit the possibility of reinfection with syphilis may lead the physician astray in his treatment.

Dr. James Brew of Nashville recently reported a case (*Med. Record*, July 27, '07) which was treated at different times by two reputable physicians. From a careful description of the case it is evident that we have here to deal with a clear reinfection. The patient had been treated carefully for an undoubted syphilitic infection. He recovered and remained without any manifestations of the disease for 15 years. He then contracted a leucic chancre which was followed by sore throat, macular eruption, etc. He married and the child born from this union was most positively syphilitic. The mother has never shown any symptoms of syphilis.

In a paper read before the last International Dermatological Congress in New York Dr. J. K. Swinburne also reported a case of reinfection. He says that he felt impelled to report the case because of the comparative rarity of cases of reinfection and because of the general scepticism that prevails when such cases are reported.

The patient came to the author with an ulcer on the dorsum of the penis. It was a small circular ulcer with a ragged base, and there was nothing especially characteristic about it, but such uncharacteristic ulcers are frequently followed by syphilis. In common

with many physicians, no matter how characteristic a lesion may be, Dr. Swinburne waits for other symptoms and any kind of a lesion of the penis he treats with suspicion, until it is proven *whether it is specific or not by its subsequent history*.

The patient had had syphilis seven years before, and had all the characteristic symptoms, chancre, general adenopathy, eruption, mucous patches; he was under treatment off and on for years, and there can be no reason for imagining error here.

A short time after this, one or two weeks, the patient appeared again, showing a general glandular enlargement, especially marked in both groins. He said it had come on suddenly and that when he had his syphilis seven years before, the enlargement had come on suddenly in the same way. These glands in the groin, however, did have the characteristic enlargement and painlessness which we see in connection with syphilis.

A short time after this, seven weeks from the time he first noticed his lesion, he came again with a macular eruption on the chest, loins and front of arms. The patient was placed on 1-60 grain bichloride tablets and there was complete disappearance of the eruption in a few days. The patient since that time has been under constant treatment, and during that time no other manifestations have appeared.

#### GONORRHEA IN MALES A CAUSE OF STERILITY

Joseph Tabor Johnson, of Washington, is authority for the statement that men are responsible for about 70 percent of the sterility of the world, the cause being bilateral gonorrheal epididymitis, and also responsible for a large part of the involuntary sterility of the female. The often-quoted estimate of half the abdominal operations in the world being due to gonorrheal infection falls far short, he thinks, of the actual facts. Its influence as a depopulator is shown not only in causing these mutilating and unsexing operations, but also by the production of what is known as "one-child

sterility," and in the recognition of its activity as a causer of abortions and premature deliveries far more often than was formerly supposed. It is also an important factor in the production of extrauterine pregnancy, and we have the authority of Jacobi and Currier that the vulvovaginitis of little girls, which is generally of gonorrheal origin, is responsible for the frequent retardation and even prevention of the development of the female reproductive organs. The effect in adult life is to render them sufferers from amenorrhea and dysmenorrhea, and practically sterile. It is a frequent and troublesome institutional disease, originating in gonorrheal infection, but spreading in other ways, or course, than by sexual connection. Johnson says that gonorrhea may be considered to have fairly earned the title of the "chief moral and physical pest of our age," and, in contradistinction to tuberculosis, might be called "the great black plague."

#### FOR INCONTINENCE OF URINE

When the cause of incontinence of urine cannot be discovered the following prescription may be given:

Sodium benzoate.....	10.0 (grs. 150)
Sodium salicylate .....	10.0 (grs. 150)
Extract of belladonna..	0.3 (grs. 5)
Cinnamon water.....	128.0 (ozs. 4)

Directions: One teaspoonful four or five times a day.

The fact that much of the incontinence of childhood and early youth is due to masturbation should never be forgotten—even very small children practise it, and "wetting the bed" is its most prominent symptom in many cases.

#### CHLOROSIS

Certain chlorotic patients cannot take iodine even in the mild syrup of ferrous iodide. To such may be given the elixir glycerophosphatum of the National Formulary, of which a dose of one fluidram contains calcium glycerophosphate, gr. 1-2, and calcium glycerophosphate, gr. 1.



## GLEANINGS from FOREIGN FIELDS

TRANSLATED BY E. M. EPSTEIN, M.D.



### THE ACTION OF SALINE PURGATIVES

Various theories concerning the cause of the purgative action of the mineral salts, with special attention to the theories of Loeb and MacCallum

#### II

THE question may be asked whether these salts must first produce a general hyperexcitability, of which the purgative effect would be one of the results, or whether they exercise their action directly on the intestine? There is room to admit that at least a local action is produced, either on the muscle-cells themselves or on the plexuses of Auerbach and Meissner, for it will be remembered that a denervated loop of intestine does react, hence an innervation from an extra-intestinal nerve-system is unnecessary.

Observing the curious effects of calcium salts MacCallum thought that these might be utilized in cases of diarrhea, especially where a nervous origin of the trouble is recognizable. If, said he, lime water can at times give good results, then this is owing to the inhibitive property of calcium far more than to its neutralizing action upon the great amount of acid in the digestive tube. Chloride of calcium, which has no neutralizing power, is indeed more active than lime water as an antagonist of purgative substances.

This theory of MacCallum has not met with unanimous acceptance. Of those who have repeated his experiments some have obtained concordant results and others have arrived at opposite conclusions.

Meltzer and Auer (*American Journal of Physiology*, 1905), as we have already indicated, could not obtain a purgative action from intravenous injection of sodium salts, but rather noticed a contrary action from them. Here is evidently a serious argument against the theory of MacCallum.

F. W. Bancroft on the contrary ("On the Relative Efficiency of the Various Methods of Administering Saline Purgatives"), in *The Journal of Biologic Chemistry*, 1907, says that he verified the facts announced by MacCallum. According to his observations not all salts are equally proper for experimentation. While barium chloride, and in less degree sodium citrate, produce sufficiently abundant fluid stools when injected intravenously, sulphate of sodium acts far better by injection than in any other way. When given intravenously it has a diuretic action and is rapidly eliminated, while when given hypodermically it is feebly absorbed and reaches the digestive tube in an insufficient degree of concentration.

Fränkl of the Pharmaceutical Institute of the University of Vienna (Austria) has in a recent article, "Ueber den Wirkungsmechanismus der Salinischen Abfuhrmittel," in the *Archiv fuer Experimentelle Pathologie und Pharmacologie*, 1907, vividly combated MacCallum's ideas, rejecting them absolutely. His experiments were made on rab-

bits, cats and dogs. Sodium sulphate, intravenously injected, whether in small or large doses (as for instance 50 Cc. of a solution of 10:100), invariably produces constipation, says Fränkl. It is true that it produces an increase of peristalsis, but this action is not persistent enough to produce a purgative effect.

Fränkl has confirmed the hypothesis that the calcium salts do exercise, indeed, a very marked inhibitive action. The purgative action of the sodium salts given internally is really hindered by the contrary action of the calcium salts, and so one of the very important points brought forward by MacCallum is verified. And yet Fränkl does not think that this confirmation is to be taken into account. In fact he says if the theory were sound, then the action of sodium sulphate ingested ought to be counteracted by the salts of calcium when introduced intravenously. But according to his experiments there is nothing of the kind. He therefore thinks that we are not to see into this inhibitive action anything more than a chemical reaction.

It is not for us to say in what measure the new theory is confirmed by the criticisms which have been formulated against it. It seems that we should at least take into serious consideration the numerous and original researches upon which the author relies. We can at any rate see an interesting attempt to apply to a special subject ideas which tend at the present time to prevail, and which concern the part and the importance of mineral substances in the organism.

Relegated for a long time to a secondary place, these mineral substances seem at present to occupy an increasingly larger place in the phenomena of nutrition. Whether we regard them as the indispensable elements in fermentative action such as oxidation, digestive transformation and blood coagulation, or whether we see in them radioactive agents, able to liberate into the body-fluids the strong doses of energy which they have accumulated, or electrolytes which dissociate and ionize themselves and determine the molecular movements in the or-

ganic movements, in any case they seem to be absolutely necessary to life.

Their action, as yet mysterious, is revealed by their surprising effects, and a number of problems now present themselves to the biologist.—*La Province Medicale*, 1908, June 6, p. 259. [And thus long, long before we got through with the physiology and pathology of the mysterious organic living cell which lasts but a spell, there looms up already before us the physiology and the pathology of the inorganic unliving mineral which never dies and makes life possible at all! How far are we from a new alchemy? —THE GLEANER.]

#### FAMBROESIA (YAWS)

Drs. Nattan, Larrier and Levaditi had the opportunity of studying a case of yaws experimentally and bacteriologically. In the human lesion and also in that obtained from the chimpanzee the authors found the spirocheta pertenuis as described by Castellani. They admit that in the preparations colored by the method of Giemsa, there exist some slight differences between the spirocheta pertenuis and the treponema pallidum. They insist upon the histologic characters which distinguish the yaw chancre from the experimental syphilitic chancre, and they established the topography of the spirochetes in the microscopic sections. Experimentally the inoculation of yaws on the chimpanzee was always successful while the inoculation of the inferior apes with the yaws was less constant in its effects. Lastly, the authors established the facts that while the yaws do not immune the apes against syphilis, syphilis renders the inferior apes more resistant against infection with yaws. There subsists therefore a closer kinship between syphilis and the yaws than hitherto believed.—(*Gazette des Hopitaux*, 1908, p. 54.)

#### PRAGMATISM IN MEDICINE, AND PRAGMATIC THERAPEUTICS

Pragmatism is a reaction against the philosophic excess of rationalism and in-



tellectualism. It is the philosophy of facts, the philosophy of practical life, of the results of experience and action.

Applied to medicine pragmatism is something more than the medical empiricism of the past, even taking the word empiricism in its true and liberal sense, as experience. It is experience of all the results, of all traditional as well as of all more recent science. It is empiricism associated with science. It is scientific empiricism, in spite of the apparent contradiction of these two terms; it means empiricism making use of all the means put by science at the disposal of medicine.

Applied to therapeutics pragmatism, which is essentially antisystematic and antidoctrinal, is a reaction against the excess of rationalists and theorists, who lead on to medicinal ataxia, and by heaping up the idea of deception drive the physician to indifference, scepticism and inaction.

Pragmatic therapeutics utilizes all medications which alleviate the patient, whatever origin the remedies may have, and judges of them only by the results obtained. It has recourse to past methods, to all pharmacopeias, to all sciences, even to insignificant means, and it individualizes its efforts to each particular case without any systematization. Convinced of the enormous influence which the moral has over the physical part of man, pragmatic therapy makes large use of psychotherapy.

Pragmatic therapy, which is really the therapy of the practical sense of action, is not a recoil taking place in the search for medical truth, but, waiting for the yet far-off solution of all medical problems, it is a force in the action-evolution, which is always the avant guard of progress.—Renon in *La Medicine Orientale*, 1908, page 457.

### OXALURIA

Barr, of Portland, Oregon, in an address before The Congress of Internal Medicine held April in Vienna, spoke on the subject of oxaluria. He reported the results of 2797 examinations of urine from 954 patients. In 215 of the patients he found more or less

oxalate of calcium sediment in 374 specimens. All of these patients lived in one of the greatest fruit-bearing regions of the world, Oregon. Barr's idea of true oxaluria, however, refers to those cases where the oxalate of calcium exceeds the normal by 20 milligrams for each evacuation. And since he found only 3 percent of real oxaluria, positively established, in a land where such enormous quantities of oxalic-acid-bearing fruit are consumed, he therefore denies the existence of such a thing as dietary oxaluria. Furthermore, since he found in 108 urinalyses of 19 cases of diabetes mellitus only two of constant excretion of oxalic acid, while in the rest of the cases there was observed not a single oxalate crystal, he therefore denies the dependence of oxalic secretion upon diabetes, especially since oxalates appear in large amounts whether there is sugar in the urine or not, even in cases where a total abstinence from carbohydrates was maintained in the diet.

Nor could Barr admit a connection with icterus, since in 32 cases of icterus from different causes, of which 171 urinalyses were made, accidental oxaluria was noticed only twelve times. A connection with pathological processes which have as a result a diminished oxidation it is also impossible to assume, for the numerous urinalyses made in cases of dyspnea from lung and heart diseases as well as in cases of slight and severe anemias there was only a light percentage of transitory oxaluria.

Barr also denies any connection whatever between oxaluria and neurasthenia. In 171 neurasthenics with pronounced cerebral, spinal, vasomotor or sexual symptoms, of whom he made 515 urinalyses, he found transitory oxalates in the urine only 18 times, and those were in cerebral neurasthenics after psychical emotions (phobias).

In 277 urinalyses from 47 cases of cystitis from various causes he met with transitory oxalates only three times and for this reason he cannot agree with Hoppe-Seyler that mucus in the urine precipitates oxalates.

Barr divides the symptoms of oxaluria into cerebral, spinal, peripheral, muscular, arthritic, urogenital, renal, gastrointestinal and

vasomotor. He comes to the conclusion that oxaluria (true) is a peculiar disturbance in the metabolism, and which exhibits many similarities with diabetes. Neither is there any connection with gastrointestinal affections, for the so-often-mentioned indicanuria stands in no dependent relation to oxaluria; in 17 cases of decided indicanuria he met with not a single oxalate sediment.—*Wien. Med. Wochens.*, 1908, No. 29.

#### SERUM IN PURPURA HÆMORRHAGICA

Illyes, of Budapest, operated for appendicitis upon a patient affected with purpura hæmorrhagica. The patient received 80 cubic centigrams of horse serum, divided during three days before the operation according to E. Weil's serotherapy. The operation eventuated very smoothly.—*Wien. Med. Wochens.*, 1908, No. 29.

#### CONGENITAL HYPERTRICHOSIS

At a late meeting of the Gesellschaft der Aerzte in Wien Dr. Gross presented a young man 17 years of age whose entire face was covered with very fine, long soft hair, the upper part of the body being covered similarly but in less degree. The man, like all such cases (of which there are about twenty-four on record) exhibited a deficiency in dental development. This man had only two teeth. The affection is due to the persistence of the lanugo which normally is shed at the end of fetal life.

#### SOME RESULTS OF CASTRATION

Dr. H. Priegel presented to the Gesellschaft der Aerzte in Wien, May meeting, two men, both about 44 years of age, who were castrated, one seventeen years and the other nineteen years ago, because of bitesticular tuberculosis. In the one the hair fell out and then partially grew again after some months, the skin became smooth and he acquired an abundant panniculus adiposus. The prostate shrivelled to the size of a pea. The hypophysis is normal.

[How the doctor knows this without performing an autopsy THE GLEANER is at a loss to discover, if by "hypophysis" is meant the pituitary gland], the bone-growth shows no alteration. Up to five years ago he was able to copulate. Recently this man was operated upon for felt-kidney tuberculosis. The second man was operated for lymphoma in the right axilla, and analogous changes were seen in him after castration as in the first man. Both of them exhibit a tired appearance.

In commenting, Dr. Tandler spoke of his investigations among the (Russian?) skoptsi. These get no beards even when castrated in earliest youth. When the castration was done after the termination of bone-growth, then the osseous system and the hypophysis show no signs of being endangered.—*Wien. Med. Wochens.*, 1908, No. 22.

#### KOCH BACILLI IN ROOMS OF TUBERCULOUS PATIENTS

P. LeNoir and Jean Camas have examined into the presence of Koch bacilli in hospital rooms occupied by tuberculous patients. The air for examination in most cases was taken at 50 centimeters (20 inches) distance from the mouth of the patient who coughed and had bacillary expectorations. The filtration of the air was effected by various means: cotton, powdered sugar (dissolved, and injected into guinea-pigs), or also by passing it through water. By this latter process he collected the dust from 53,000 liters (159,000 pints) of infected air, when the water was centrifuged and the sediment used for inoculations.

The air was taken from near the ground and also where it was quite confined, but in no instance did the inoculations produce tuberculous lesions in the guinea-pigs inoculated. These experiments prove at least the difficulty of infecting with tuberculosis by inhalation of hospital-air where tuberculous patients reside and where the elementary hygienic conditions are observed.—*La Med. Orient.*, 1908, p. 23.



## A SYMPOSIUM ON TYPHOID FEVER

The first article in the symposium being a reply to Dr. Eccles' article in the October Clinical Medicine and a defense of the water-borne theory of the transmission of this disease

THE writer wishes that he possessed the facility of expression of his friend from Ft. Madison, Ia., a fellow who does not measure very much in a vertical direction but who carries a head which requires about a No. 9 hat, said head being well filled with medical lore, and also with the ability to tell what he knows.

Lacking said ability, the writer will have to do the best he can under the circumstances, so here goes:

On page 1299 of THE JOURNAL OF CLINICAL MEDICINE for October appears an article by Dr. R. G. Eccles, entitled, "Is Typhoid Fever Preventable," stating, "How this disease continues to prevail in spite of the heroic methods which are being employed to prevent its occurrence. The errors in these methods and the real truth".

The writer wishes to state that he is fully in accord with Dr. Eccles' belief that we should pay great attention to the necessity of inculcating the importance of personal hygiene, of warding off infection of food from flies, of the necessity of a supply of pure milk, and the importance of keeping it free from infection during its handling till consumed, and the disinfecting of the discharges both intestinal and renal of typhoid patients; and still he does not believe with the doctor that the importance of these hygienic precautions

(with the exception of the last which is, of course, the crux of the whole list) compares with the importance of preventing the contamination of the civic water-supply with the bacillus typhosus. Let us see!

In regard to the possibility of a water epidemic of this disease Dr. Eccles says, "The writer does not deny the possibility of such a thing, but he seriously doubts it.

Earlier in his paper he also says, "Men who reason in the average feminine way sincerely believe that plausibly stated antagonistic ideas are positively dangerous."

Well, maybe Dr. Eccles' doubt, as expressed above, may not be dangerous, but the writer thinks (whether his own reasoning be feminine or masculine) that the *expression* of the doubt is dangerous, anyway.

Let us see whether Dr. Eccles' doubt is sustained by the records:

Anders, in his "Practice of Medicine," 4th edition, page 25, says: "In the spring of 1885 a most instructive, though deplorable, epidemic occurred in Plymouth, Penn., a town of 8000 inhabitants. At first the nature of the epidemic was not recognized, and before it ceased to appear 1200 persons were affected, with 130 resulting deaths. This epidemic was investigated by Shakespeare and L. H. Taylor and was found to have arisen from a single case of typhoid occurring in a house on a hill which sloped toward the

water-supply of the town. This patient was ill during January, February and March, while the ground was frozen and covered with snow, upon which the dejecta were thrown by the attendants. On March 25 there was a considerable rain-fall, followed by a sudden thaw, and the water, unable to sink into the frozen earth, ran at once through the various surface channels into a brook, which in turn emptied into the reservoir. Coincidentally with the thaw the patient had frequent and copious stools, and, strangely enough, for certain reasons the infected water-supply was at the same time more largely drawn upon than usual. On April 10 other cases of the disease appeared, and careful investigation showed that those citizens who obtained their water from sources other than the infected reservoir escaped the disease."

Just preceding his account of this epidemic Anders says:

"In the vast majority of instances the poison is transmitted from those affected with this disease to those in good health through the drinking-water supply. This has been especially true in most extensive epidemic outbreaks in which the mode of origin has been traced. Wells, storage reservoirs, springs and rivers may alike become contaminated and cause epidemic prevalence of the disease."

And this is the opinion of a *clinical* physician of vast observation and experience.

Yet again—A few years ago the city of Waterloo, Iowa, was visited with a scourge of typhoid, luckily mild in character, with few deaths. The consensus of opinion among the local physicians after bacteriological examination of the civic water supply was that it was the original and main carrier of infection.

A year or so later the city of Ithaca, N. Y., and the great university located there, was afflicted with an epidemic of typhoid and the sources of infection were distinctly traced to the water-supply.

Austin Flint ("Practice of Medicine," 1868) says: "A stranger was detained in a small village near Buffalo by an illness which proved fatal in a few days and which was

recognized as typhoid fever by his attending physicians. Up to this time, it is stated, typhoid fever had never been in this neighborhood. In the course of a month more than one-half of the population, numbering forty-three, was attacked by the disease, and ten had died. The family of the tavern-keeper at whose house the stranger lodged was the first to suffer, and of the families immediately surrounding the tavern but one wholly escaped, that of a man named Stearns. Upon investigation it was ascertained that this family alone, of all these families did not use the well belonging to the tavern, but had its own water-supply.

It would naturally appear to a reasoner of a feminine turn of mind, or any other for that matter, that there was a direct connection between the tavern-keeper's well and the local cases.

The reports in the "Practical Medicine Series of Year-Books" for five or six years past, while recognizing other sources of infection, ascribe the chief importance to the water-supply as a medium. And well they may, as the infection of milk, so graphically alluded to by Dr. Eccles, is almost universally furnished either by the dilution of milk with infected water, or by the contamination of milk containers by being washed therein.

One more point: I cannot reconcile some of Dr. Eccles' statements with others that he makes. I distinctly differ with him when he says: "Teach the people the truth. Tell them that danger lurks in their food and not in drinking water." That is a little too strong for me. I believe in teaching them that danger lurks in *both*, and that Dr. Eccles, in spite of what I have just quoted really believes the same. I will quote from another part of his article:

"The reader must not imagine that this writer is not convinced that water is not a carrier of typhoid. It is my sincere belief that it is and that the municipal filtering of water will reduce the number of cases in a city."

With that statement I am in hearty accord because not every inhabitant of a city gets his food, milk, ice-cream, etc., from one common source, but wherever there is a common

civic water-supply, if it becomes infected, every inhabitant of that city who uses that water is exposed to infection.

In conclusion let it be understood that I wish thoroughly to endorse Dr. Eccles' warning in regard to infected food—my only contention being that he should not try to belittle the importance of water-borne typhoid infection.

WM. C. POST.

Maquoketa, Ia.

#### THE DIET OF TYPHOID FEVER IN INDIA

The article of Dr. Smisson and his criticism published in your July, 1908, issue, page 984, has been of interest to me. I beg leave to differ from his remarks that the apyrexia was entirely due to rice-water diet. The doctor has no experience with oriental diet—especially that of an orthodox Brahmin.

Rice-water, with salt and lime juice, has been my sheet-anchor in the treatment of all intestinal diseases, and with very efficacious results. In no case was any antipyretic action of the soup noticed. Rather it is endowed with a certain diuretic action; and it is of easy digestion in comparison with bread of any kind.

The staple diet of Indians is rice (soft boiled) and pulse (*cajanus indicus*) and vegetables.

During my fifteen years (civil, military and independent) of practice I have never seen the antipyretic action of rice-water. Milk in any shape (modification) has produced injurious effects (constipation or diarrhea, tympanites, etc.). All my fever patients dieted as above have been free from enlargement of liver and spleen.

Indians, whose staple diet is very simple, require but small amounts of intestinal antiseptics in comparison with other nations whose principal diet is flesh in any form.

Besides the sulphocarbolates my patients are given echthol, baptisia and sodium sulphite. Since adopting the teaching of Drs. Waugh and Abbott, and especially their "clean-up-clean-out-and-keep-clean" prin-

ciples, I don't dread the gastrointestinal disorders, and my treatment has been very satisfactory.

I learn much from the pages of CLINICAL MEDICINE, more than from twelve other medical journals. Long live THE CLINIC and Drs. Waugh and Abbott, is my earnest prayer to God.

THAKUR R. D. SINHA.

Medical Officer.

Motihari, India.

#### TYPHOID FEVER

During the last year I have treated three cases of typhoid fever, starting out with calomel in small doses and following up with sulphocarbolates. In addition to these means I have also used inunctions of unguentum Credé twice a day, applied to the middle of the thighs and axillæ, using on each thigh and in each axilla a quantity about the size of a small hazelnut. The results have been a termination of the fever by lysis at the sixteenth or seventeenth day.

Several of my colleagues have reported similar results. Whether the results in this treatment are mere coincidences or not I am not prepared to say, as the number of cases is too small to base any statistics upon.

I report them in the hope that others will use the ointment in their cases in addition to the other treatment and report results. As my practice is mainly surgical I cannot expect to have enough cases of my own to come to any definite conclusions as to the results.

J. C. TRITCH.

Findlay, O.

[An interesting suggestion. We hope our readers will try it out and report.—ED.]

#### POSITIVE RESULTS IN TYPHOID FEVER

I have just received the October number of CLINICAL MEDICINE and on page 1364 I read a report from Dr. Kennedy on typhoid fever. I think his treatment *somewhat* right. Judging from the trend of his pen he does not give magnesium sulphate except in the



early part of the case. My experience is that it is needed each morning until fever discontinues. It helps to reduce temperature and thereby conserves strength and prevents rapid emaciation. I give this regardless of the action of the bowels.

In case of diarrhea, going as many as thirty stools in twenty-four hours, I give magnesium sulphate each morning; and in one case in particular, with positive Widal reaction and presence of rose-spots and temperature of 105°F. in the afternoon, the fever was gone in twelve days and the patient made an uneventful recovery.

To complete my treatment, which is very simple, I load my patients with sulphocarbolates to effect and keep them so with sponge-baths and aconite for fever, the latter given very gradually.

I have been practising for thirteen years, am a graduate of the University of Maryland, and practised as I was taught at that school for six years, and then I changed to the "clean-out-and-clean-up" treatment to my delight, for in the first six years of my practice I lost five cases of typhoid fever and in the last seven years I have lost none nor had a single case of intestinal hemorrhage; and I have had on an average about fifteen cases each season. Some of them bid fair in the beginning to be desperate, but all cases are now well in from two to five weeks.

Compare these results with my own case in 1895.

I was in bed for ten weeks and for several weeks hovered between life and death, unconscious; this under cold-bath treatment, and if my bowels moved more than three or four times in twenty-four hours I was given an opiate to lock up the very material that caused intestinal ulceration and hemorrhage and nearly my death, and nature trying to get rid of it in the form of diarrhea.

Think! Open the sewers of the body and turn out out the filth and keep it out—keep the bowels moving so much that the material in the intestines doesn't have time to cause ulceration, balloon tympanites, delirium from high fever, emaciation, phlebitis, and the many complications that accom-

panied and followed typhoid under the do-nothing treatment (?).

I am very fond of CLINICAL MEDICINE. It is the best of the bunch.

W. T. JONES.

Laurel, Del.

[Positive results give a positive faith. That's the reason why we *know* that if a man adopts the "clean-out-and-clean-up" methods in treating typhoid fever (and pretty nearly everything else for that matter) he is going to become one of the "I know" kind of men.

And another point: We have become so optimistic (call it what you will) that when failure follows the use of these methods we feel pretty sure (yes, almost *positive*) that the doctor has neglected some point in treatment, overlooked some vital measure, attention to which would have brought him success. See how this is exemplified in Dr. Jones's little article. He goes right to what may have been an oversight in the treatment of Dr. Kennedy's cases—the possible failure to secure perfect "cleaning out," which, as we have endeavored to emphasize time and again, is an *essential* to the best results.

Let us have more of these practical papers. There's plenty of time for more good things on typhoid, and we should begin to have live articles on the diseases of the winter months. Send them in.—ED.]

#### TYPHOID FEVER: AN EXPERIENCE WITH FIFTY CASES

In the October number of CLINICAL MEDICINE you ask for typhoid-fever reports. I have had fifty cases of typhoid with three deaths. This gives a mortality of 6 per cent. One of these patients died from spinal meningitis, the typhoid diagnosis being assumed at first, though the Widal test was negative; one died of septic infection following abortion, and one died from the exhaustion of typhoid following pneumonia.

Four families had three patients at once. In three families there were two sick, two families had four patients, and in one family

there were six sick during two months. Of these patients one had a trained nurse, one family having three cases had an experienced nurse, and the others were cared for by members of the family. There was strenuous work for one or two who had the care of four patients at the same time in addition to the housework. The diagnosis was in the majority of cases confirmed by the Widal test. The excreta from the first case (not my case) were drained into the river above the point from which water was pumped into the town reservoir.

All received calomel and podophyllin until they were "cleaned out" and regular doses of saline laxative as needed. Whenever the pulse seemed to indicate a rise of temperature they received aconitine, digitalin and all had strychnine in appropriate doses, with brandy if there was much loss of strength. One child got so weak that he could take nothing but diluted brandy. Usually I believe that alcohol is to be withheld from any patient. About half of them were given the sulphocarbolates and half acetozone until the bowels were right and the odor natural. The food was milk and gruel with fruit juices. Other treatment was that recommended by CLINICAL MEDICINE as necessary to meet indications.

Many of the cases had tympanites which yielded to saline enemas and turpentine, except one fatal case which was benefited by nothing I or a consultant could give. Pushing antiseptics prevented further trouble. All the patients were supposed to have a sponge-bath every three hours, if the fever was above 102°F. One patient (who died) had her face washed (I learned later) twice a day! She was cared for by a consumptive husband whom she had cared for (and abused) when he was ill.

Four patients had relapses brought on by eating solid food against my orders. One patient showed almost constant delirium for three weeks, getting only temporary relief from any medication, though his fever was up to 103°F. but part of three days. This patient had a trained nurse, constant attention, antiseptics until stools were odorless, and he had no visitors. He would rouse up,

speak naturally for a few moments, and then would be "off" and "talk" day and night. This was from the effect of a severe accident on the cars a short time before his sickness which nearly killed him. Increasing the amount of stimulants made no change. The kidneys were watched in all cases, but only such simple diuretics as the potassium salts were needed.

Under this treatment few had any serious symptoms. There were three cases of hemorrhage, as noted below. Only five were delirious to any extent. All delirium was controlled by hydrotherapy except in one case. In the three fatal cases only did the treatment fail to relieve untoward symptoms. With the alkaloidal treatment the trouble is that members of the family think the patient isn't taking much medicine, as he needs so little compared to what is given in the galenic form. Almost all of the younger patients would say each day, "I'm all right," but they would cry for food.

But while the treatment would control the symptoms it did not shorten the duration of disease as many report. Mouth symptoms troubled greatly, but were invariably controlled by: cresol, min. 10; tinct. myrrh, glycerin, aa. oz. 1; camphor water, water, aa. ozs. 2. Sig.: One dram in one-half glassful of water.

Of the fatal cases one had sulphocarbolates, one acetozone, and one both and also everything else I could think of. This patient could not have been saved but by an operation if she could have been moved to a hospital in time. She and three children were sick in a small room.

*Duration of Disease.*—Nine cases ten days or less with an average of six and a half days; twenty cases under twenty days, average fifteen and a half days; thirteen cases over three weeks without relapse or hemorrhage, average twenty-seven and a third days; two cases died after twenty-four and twenty-six days; four cases (including relapse from taking solid food after the second week) went to twenty-seven and thirty-six days. Two cases with hemorrhage, when apparently nearly well, went to forty-seven and fifty-four days. All but four of these cases lived

in tenement houses and had but little attention.

*Hemorrhagic Cases.*—1. H. S., age 9 years. The temperature was normal the twenty-second day, then ranging from 102.6° to 103.8°F for seven days, when the temperature was 101.7°F. and she had a hemorrhage. She was kept perfectly quiet, the foot of the bed was elevated, crushed ice was placed over the abdomen alternated with turpentine stupes, and atropine was given till the face flushed and hemorrhage stopped. The fever continued seventeen days.

2. Mrs. L. C. The fever decreased until the twelfth day, when it went up to 104.6°F. and she had a hemorrhage. The same treatment controlled it, but as she refused to stop eating solid food, which I had only suspected as her fever ran higher than other cases, I gave up the case.

3. C. Y., aged 5 1-2 years. The nineteenth day, when the fever was 101.4°F. (had been 103.7°F. previously) the bleeding began. He then bled from his nose, ears, mouth and bowels and became very feeble. For days he would not or could not speak, even in a whisper. He passed blood in his urine the second day of bleeding. The hemorrhage was gradually controlled by the above treatment until thirty-five days later his temperature was normal.

*Deaths.*—1. Mrs. G. became sick March 13. She had pneumonia and when getting well came down with typhoid. She died of neglect and exhaustion. I found out later that they gave her no baths and did not follow directions as to diet.

2. A. D., 6 years. April 24, 104.5°F. Meningitis followed and he died in five days. His father doubting the diagnosis of myself and a consultant employed a French doctor who said "the head symptoms are due to the bad cold in the head."

3. Mrs. P. G. Abortion just as fever was leaving her. That evening her temperature was 101°F., then subnormal for two days, when she died in spite of all we could do, including strychnine and brandy.

I found that some makes of sulphocarbolates fail to give satisfaction. The alkaloidal methods are all right, and I use the best al-

kaloidal granules I can get. CLINICAL MEDICINE is the cleanest, most helpful medical magazine I have ever seen.

H. F. CURTIS.

Hampden, Mass.

[This is an exceedingly interesting report and shows what can be done in the treatment of typhoid fever when up-to-date and intelligent methods are employed. All of the three cases in which death was the result were apparently desperate from the start, and it is doubtful if they could have been saved by anyone.

Dr. Curtis thinks that while the treatment controlled the symptoms it did not shorten the course of the disease. We are inclined to disagree with him. Of his fifty cases twenty-nine had a duration of less than twenty days, and of the remainder thirteen averaged less than four weeks. Such a record must be exceedingly rare under expectant treatment. Indeed, we do not think it has been secured—certainly not in such environments as the doctor describes.

Reports of this character we are very anxious to have. We shall hope to have many more from our readers.—ED.]

#### SUCCESS: WHAT IT MEANS

There are two standards of success: one is what the world says of you as a success; the other is what you think of yourself. The world sees only the thing attained and sets its own value upon it. Here, as elsewhere, public opinion is often wrong as to values, but, *cui bono?* You and you alone know what particular brilliant star of achievement you had set your heart upon; you alone know how far short of the mark the arrow of your ambition has fallen.

And so, for the ambitious man there is no success. The goal is always just beyond. For him the plaudits of the crowd are gall and wormwood. And in his dreams he sees a grave, and o'er that grave a brilliant star is shining. That star is the star of his ambition, the goal for which he is striving.

And, yet, who would not struggle onward and upward toward a star, even though be-

tween the runner and his goal there yawns an open grave.

And so, let us fight on—fight to win that success which is always just ahead. The struggle for the unattainable has ever been a struggle for the ideal. Striving for the ideal is what has raised mankind from its old place among the cattle—and the flies.

If I were asked for a definition of a successful man, I should say: "A successful man is he who has done the best he could with such material as nature gave him." And yet, this standard would be for the world, not for the man himself. As I said before, by the true standard—one's own opinion of himself as a success—there are no successful men. And this is well for the world though hard for the individual.

The successful man—as the world wags—always has enemies. The farther he travels onward toward his goal, the more enemies he acquires. Sure, why not? Enemies are milestones on the road of ambition—which is the only road to success. Whenever you make one, set the son of a gun up by the roadside. "Now stay here, blame you," and then just mosey right along toward that star. He'll stay there, all right, and you'll never see him again—unless you go back; and you'll not do that if you can help it, will you?

Enemies are a biologic proposition, pure and simple. Some are lions and tigers, others are purely parasitic—like fleas and some microbes. The cleanest of organisms may have its parasites and messmates. Some of these have their uses, too. Certain microbes that come to infest remain to bless.

Eh? What? Well, now there's the colon bacillus, for example—and there's the yeast fungus. He doesn't mean to be good, but he's a valuable friend to the race for all that.

Enemies are the best friends an ambitious fellow can have—if he wins 'em on the square. They are the whip and spur which egg one on to increased endeavor. An out-and-out enemy—a foe on the square—is a great boon. You never can make a friend of him, perhaps—you'd best not, maybe—but he may one day touch his hat to you and say:

*"Touchez monsieur;"* What is sweeter than that, eh?

As for the "snake in the grass" enemy who squirts "pizen" at you, he's "easy meat."

I'll tell you how to fix him. First, find out in which direction he particularly wishes to shine. Next, shy your castor into the ring and "beat him to it."

There isn't much to do now. That particular battle is over. Personally, I should prefer to sit comfortably in my easy chair, smoke my havana, and through the fragrant smoke rings watch mine enemy with his head in the corner taking a cold lunch off his own heart. His agony will not last long—he will speedily die in the throes of autotoxemia.

Know what this is? Well, in case you don't: Mine enemy dies from poisoning of the blood by his self-elaborated venom. The scorpion stinging himself to death—see?

G. FRANK LYDSTON.

Chicago, Ill.

#### A GREAT MAN'S OPINION OF THE ALKALOIDS

At the last meeting of the Tri-State Medical Society, held at Ottumwa, Iowa, in September, I had the opportunity to hear you read a paper before that society. Although I thought that the subject of this paper, which gave "Some Facts About the Newer Alkaloids," would be of no interest to me, as being in no connection with the special line I practise, I was forced to listen to it with a growing interest. The reason for this fact was that your paper brought back to me the time when I, as a student, listened to the lectures of our professor of pharmacology, Dr. August Vogl, at the University of Vienna, in 1891.

Professor Vogl, in whose laboratory some very valuable research work about the action and the separation of the alkaloids was carried on, used to emphasize a standpoint and principles quite similar to your own, as given the audience in Ottumwa, viz., that the often unreliable and changeable action of the pharmaceutical preparations, such as infusions, tinctures and extracts, should be abandoned in favor of the more

scientific dispensing of the active principles, the pure alkaloids.

Some examples, which he used to submit in favor of these claims, were almost identical with the examples that you quoted. He strongly believed that all pharmacopeias of the coming decades would have to reckon with these facts, and that the change would necessarily be brought about as soon as chemistry should be able to separate all the active principles contained in the crude commercial drugs, and as soon as experimental medicine and pathology could explain their action upon the healthy and the diseased body. You can imagine that such a statement left a strong impression upon us students, for Professor Vogl outside of his connection with the University of Vienna was also president of the Austrian Supreme Sanitary Board, a body which would be called, in our own country, a United States National Board of Health, provided the United States should choose to create such an office.

While the validity of the above-mentioned principles can not be disputed, yet it will take many years before the great house cleaning in the pharmacopeias can take place. It is an undisputable fact that the medical profession, which strives to be the most progressive one, comprises also a good number of conservative and ultra-conservative members, who never will abandon the infusions, decoctions, tinctures and extracts of the old school, handed down to them by something like 2000 years of medical practice. However large their number may be at the present time, the future necessarily belongs to the pure alkaloids, and the time may come when our extracts and tinctures of nowadays may be looked upon in the same way as we look down upon the electuaries and plasters of the olden times.

FREDERICK MUELLER.

Chicago, Ill.

[We value this letter very highly, not only on account of the highly interesting character of its contents, and the support of our ideas coming to us from the great Austrian seat of medical learning (the world's "head-

quarters") but also because we value Dr. Mueller's own favorable opinion of the alkaloidal movement. A few years ago a great stir was made in the American medical world by the coming of Professor Lorenz of Vienna to treat the daughter of a Chicago millionaire for congenital dislocation of the hip. As you will remember, it was a triumphal visit from city to city. Dr. Mueller came with Professor Lorenz as his first assistant, and soon after this located in Chicago. In his own special line, orthopedic surgery, he is a recognized authority. As he says in this letter, his interests are not therapeutic, but the force of Professor Vogl's argument left a strong impression in his mind, exactly as it must in the mind of every man who *thinks*.

Isn't it true, after all, that if any doctor really can be persuaded to think over the basal facts of alkaloidal therapy, as we have been endeavoring to present them and as thoughtful men have been teaching them in Europe and America for a generation, that he *must* recognize their force? It seems so to us. Doesn't it to you?—Ed.]

#### ADVERTISING ETHICS

I have read with great interest the editorial entitled "Advertising Ethics" in your October issue, and wish to congratulate you upon the fair-minded manner in which you have reviewed the subject. I hope that your "appeal" for a square deal will induce your readers to think out this subject carefully for themselves.

In this day the business of the world is moved by advertising, and it is my opinion that, with a very small percentage of exceptions, advertisers, at least in the medical press, aim to tell the truth with regard to their goods; that their statements sometimes appear to be extravagant cannot be denied, but this appearance of extravagance very often depends upon the point of view. The advertiser thinks he knows all about the article advertised, and his opinion may be biased and extravagant. On the other hand, the reader of the advertisement, knowing nothing at all about the article advertised,



sees only what appears to him to be an improbability, and he may thus jump to the conclusion that the statements of the advertiser are extravagant and unwarranted. It is nearly possible that both the advertiser and the reader are sincere in their opinions and that the truth lies midway between. If the advertiser is unwarranted in making, what appear to be, extravagant statements relative to the value of his drug, it is certainly presumptuous in the reader who has never used, perhaps never seen, the article in question to condemn it because the statements made by the advertiser do not conform to the reader's own opinions. We all differ in our opinions of the most common everyday matters; one person finds the temperature of a room excessively high, and another, under exactly the same conditions, complains of the cold. Now, the room may be hot, or it may be cold, but the probability is that it is what most people would regard as temperate. However, the fact remains that to the first person the room is hot and to the other cold; neither has a right to condemn the other for his lack of judgment.

My opinion is that it is the desire and the intention of advertisers to cling strictly to the truth in their statements, and while these statements may sometimes be rather more enthusiastic than the facts will warrant, the advertisers are at least to be given credit for integrity of purpose; and if the article advertised appeals to the necessities of the reader, he should give it a trial, for (as you very truly state) if the article advertised is not deserving of confidence, the user of it will very quickly make this discovery, and the advertiser is only wasting his money when he makes false claims for his product.

I do not think that any article deserves approval or condemnation when the judgment is based entirely upon opinion, but I do believe that when the physician has thoroughly tested any advertised article, he should always be free at all times to make known his approval or condemnation of it; but he should be very sure that he knows what he is talking about before he attempts to do either.

I believe with you that the quality of medical-journal advertising has greatly improved in the past few years. If any physician will read carefully all the advertisements in the current number of *THE AMERICAN JOURNAL OF CLINICAL MEDICINE*, I am sure that he will find food for thought and reflection that will materially aid him in his work; and it should be his duty when he finds an advertisement which appears to him to violate the ethical spirit to write to the advertiser and, in a courteous and friendly manner, offer his criticisms, for, after all, we are all working toward a common end, and that is, to better the general condition of mankind; and the fact that we make a living out of our work is in reality only a necessary incident.

It goes without saying that the advertiser of medical supplies is dependent upon the physician for his business, but it is also true that the advertiser, in many ways, aids the doctor in the successful practice of his profession; and it would be well if the community of interest was fully recognized and acted upon by each.

C. S. CHAMBERLIN.

Cincinnati, O.

[Dr. Chamberlin's opinion is certainly the sound one, and is supportive of our own position as taken in *CLINICAL MEDICINE*. While a good article and an honest presentation of it are essential to clean advertising, some allowance must be made for the honesty, enthusiasm and personal opinions of the man or firm which presents it. To assume that the man who is advertising something is a rascal, and that he must first prove his innocence, is unjust and should be abhorrent to all clean, honorable men who are searching for truth and willing to recognize it, wherever found.]

Dr. Chamberlin can represent both sides in this matter. He is a practising physician. As a representative of the Eusoma Chemical Company he advertises to physicians. All he wants—and all most advertisers want—is that his product and what he has to say about it shall be measured by actual service, not by finely cut rules of technical

criticism, having no bases in experience.—Ed.]

#### AN EXPERIENCE WITH PNEUMONIA

I have treated pneumonia about as well as any of my brethren, but have always found the cases to run seven to eleven days very severe. I just simply pull them through (when I do) on a very slight margin, and I find my brothers doing just about the same.

In reading *THE AMERICAN JOURNAL OF CLINICAL MEDICINE* (which is one of my best) I have noticed many reports of getting along nicely with pneumonia. I have always been skeptical, and reasoned that the physicians were either making inaccurate diagnoses or were telling what was not true. Finally I began to consider myself unduly skeptical to think so many physicians were liars or fools unable to diagnose. So I decided that I could not do worse with alkaloidal treatment than with the old general treatment, and thereupon armed myself with all I felt was needed.

On April 6 I was called to see a young man, 17 years old, suffering from pneumonia. He had pneumonia of the right lung; temperature 104°F., pulse, 125, respiration 34, pain, sputum streaked with blood. I left him eight 1-6-grain calomel and four 1-6-grain podophyllin granules, with directions to give the calomel every half hour and every hour also one of the podophyllin, followed with saline laxative, and to repeat the latter when needed. I left the defervescent compound, one granule to be given every hour; sulphocarbolates one tablet every three to four hours.

April 7. Temperature 103°F., pulse 115, respiration, 32.

April 8 I did not see him but heard through the telephone that he was doing well.

April 9. Temperature 102°F., pulse 100, respiration 28.

While I was making this visit I got a call to see another man, 35 years old, and found this to be also a case of pneumonia. Now the question came to me, how shall I treat

him. The new way had already done very well by me in the first case. So I decided to give alkaloidal treatment.

On April 10, very much to my surprise, when visiting patient No. 1, I found temperature, pulse and respiration normal and he was feeling very good.

Calling on my second patient April 10 and 11, I found him doing as well as could be expected. On Sunday, April 12, another physician was visiting me, and so I asked him to look over the case to see that my diagnosis was correct. He found it was. April 13 I found temperature, pulse and respiration normal.

Here are two pneumonia patients that were up and at work in two weeks from the time they became sick. Now this may just have happened, but it is odd it never happened before. Whatever may be the cause I am going to treat some more cases by the alkaloidal method.

*Later.*—I did not forward the above report on the first two cases when written. But on May 16 I was called to see a man 43 years old and found him suffering from pneumonia. I employed the alkaloidal treatment, and on May 21 he was up. This makes three cases, and I must say I never had three cases get along so nicely before. It has given me just confidence enough so I am going deeper into the treatment in all cases.

I have not jumped at this treatment, for I have been testing it a little for the last five years, but I never before had the faith or confidence to try it in pneumonia. I now feel that the treatment is ideal

J. H. F.

—, Wisconsin.

[Here is a letter which we received some months ago, when the pneumonia season was just drawing to a close. It is timely now, and so we print it, as expressing the sentiments of practically every man who tries this method of treating pneumonia for the first time. We get hundreds of reports from all sorts of men in all parts of the country of cases being treated under all kinds of conditions, and practically all of these men get better results from the alkaloidal method of

treatment than they ever were able to secure in any other way. We think this fact is justification enough for the enthusiasm we feel and which we put in the pages of *CLINICAL MEDICINE* concerning this new method of treating disease.

What alkaloidal therapy will do in pneumonia it will do in other diseases. By that, of course, we do not mean that we can cure everything with the alkaloids, such a claim would be an absurdity, but we do believe that this method promises more than any other. And there are thousands who agree with us.—ED.]

#### A NOTABLE NUMBER

The October number of *The Denver Medical Times* should be in the hands of every physician who is interested in tuberculosis—and who is not interested in it? A large portion of the issue is given up to the discussion of this subject, especially from the Colorado point of view. The effects of the Colorado climate in the treatment of cardiac, nervous and other troubles are also considered, and there is a splendid resume of the last meeting of the Colorado State Medical Society. *The Times* is "doing itself proud" and all physicians of the Rocky Mountain region (and lots of others) should support it generously.

#### FOR YOUR TUBERCULOUS PATIENTS

A medical friend has had remarkable results in the treatment of tuberculosis. In several years, treating a considerable number of cases, he has had but one failure. In order to extend his experience with this method of treatment he wishes to secure some more clinical material. If any reader of *THE CLINIC* has a case of this dread disease on hand, preferably one of his own family, if he will communicate with us we shall be glad to put him in touch with the doctor. We want to have a hand in the observation of the case because we have great faith in the methods employed.

The charge for treatment will be merely nominal. Anyone who can afford to come

to Chicago and pay board and minor additional expense "will do." Of course only a few patients can be taken at a given time.

In writing, tell us all about your case; the character and degree of the tubercular involvement and how far advanced it is, also whether the presence of tubercle bacilli has been definitely determined.

#### A PROMISING WORK

We have just received from Dr. C. A. F. Lindorme, of Atlanta, Ga., an epitome of a book which he purposes to publish, to be entitled "American Self-Knowledge, National and Personal". This book will contain about 300 pages and its price will not exceed \$1.50. Dr. Lindorme desires to secure subscriptions enough for this work to insure its early publication.

The writer knows Dr. Lindorme personally, and considers him not only one of the dearest men in our profession, but one of the real thinkers. We know that his book is sure to contain matter of the utmost value. No doubt Dr. Lindorme will be glad to send a copy of the epitome to any who write for it, and we hope that many of the readers of *CLINICAL MEDICINE* will do so, and at the same time send in a subscription for the book. It will be money well invested.

#### INTERROGATIVE WAYSIDE HINTS

When high Authorities disagree who shall decide?

Have you read in the September number of *CLINICAL MEDICINE* "How Authorities are Created?"

Which side are you on? For better therapy, or for drug nihilism, trust literature and dope?

Is it words or works that count?

Which is your motto, "Ignorance and Imposition," or "Science and Demonstration?"

Are mere opinions of any value in science?

What are you looking for, something theoretical or something practical?

Have you burned your old textbooks on Practice and are you reading an up-to-date

independent medical journal? If not, why not?

Did you ever stop to think that there are no "clams" on the editorial staff of *CLINICAL MEDICINE*?

Is it unfortunate to the public for a man to get a high position through politics, wealth or relationship, regardless of his fitness for the position?

Is there still wickedness in high places?

E. C. STURMAN.

Arriba, Colo.

[Those interrogations go right to the heart of things. The time we live in is *alive* with questionings. Men want to know that they are getting "the square deal." They want to know whether those who have been placed in positions of power are working for them, or against them. And *we want to know*. Who can tell?—ED.]

#### THE MAJORITY OR THE MINORITY?

"In questions purely scientific the minority has always ruled."

I have read with interest the "Kicker's" article on Latin or English with your reply to the same (*CLINICAL MEDICINE*, Oct., 1908, p. 1369) and I must say that I see the matter about as the "Kicker" sees it. While you may be sincere in your effort to keep *CLINICAL MEDICINE* out of the hands of the laity by refusing subscriptions from schoolboys, school-teachers, pharmacists, public libraries, etc., and by calling the doctors foolish who throw away their copies of *CLINICAL MEDICINE*, yet you cannot keep your journal, "for doctors and doctors only" out of the old-book store of the Salvation Army of this city. I can buy, in fact any layman can buy, *CLINICAL MEDICINE*, *The Journal of the American Medical Association*, *The American Journal of the Medical Sciences*, *The Maryland Medical Journal*, in fact almost any journal that you may want, at any time, from the Salvation Army of this city for the small sum of two cents per copy.

What is the use of the great medical journals railing at the doctors for prescribing proprietary medicines, which very few of them

do, when their own pages contain the advertisements and when their own issues find the laity wherever the Salvation Army is active. It is said that energy is never lost. But this type of energy, together with the hospital and dispensary curse, is making the doctors poorer, if not a source of danger to the welfare of the city.

I do not believe there is one graduated licensed doctor in the United States who does not know the official names of the drugs in the *materia medica*. The books he has studied at college contain the Latin forms in their formulas. These old books sometimes reach the laity who buy them from the ten, twenty-five and fifty-cent shelves of the old book stores. I have met cases in this city where laymen have copied these prescriptions, signed their names as doctors, and the druggists have filled them. In one instance I know of a case where a doctor told a woman that her child had diphtheria; she copied a prescription from an old volume of Hare's "Therapeutics," and "It cured the baby." The druggist did the right thing in filling the prescription for he is not supposed to know the doctor. Suppose that child had died. Wouldn't that layman have been in a pretty fix for writing a prescription?

I think that any doctor may be excused for not knowing the preparations of the National Formulary. He can get along very well without knowing them, and there are very good reasons for believing that he can. One day I entered a pharmacy of the first water in this city as the clerk was taking down the receiver to answer a call from Prof. G——, a lecturer on clinical medicine in one of our medical colleges. With a broad smile on his face the clerk turned around and said to the man whose name is on the Auxillary Committee of the National Formulary: "Dr. G—— wants to know the name of that preparation in the National Formulary which corresponds to glyco-thymoline." The answer went back: "Liquor Antisepticus," and a little laugh went around the clerks which caused a few customers to smile. I went away from that pharmacy with the conviction that the professor had

dropped a little in the estimation of the pharmacists, and that his knowledge of *Liquor Antisepticus* had cost him too dearly.

As long as pharmacists are able to read the abbreviated titles of the official drugs, if the physician is unable to write the prescription in Latin, it will be to our interest to write the prescription in the established form, as well as to the interest of the pharmacist. If you get friendly with your druggist, in all probability he will get friendly with you. If you will look after his interest you will find that he will look after yours. He will refer patients to you in preference to the doctor who tells the big, constipated fat woman to go down to the drugstore and get "five cents' worth of lapactic pills," or to the woman who complains of a whitish vaginal discharge "to go down to the drugstore and buy five cents' worth of boric acid."

Can we blame the druggist for saying; "Is that for yourself, madam?"

"Yes," comes the tardy reply.

"Now, my good woman, you take my advice. Just go home and take no medicine at all."

"What! no medicine at all! Why, sir, that is money out of your pocket."

"That is all right, madam, I know it is; but I would rather be money out than to have you waste your money for drugs which have no value."

"Well, then sir, if it is of no value of course I don't want it, and I thank you very much for the information," and she goes home.

The physician has thrown away his opportunity and the druggist in protecting his own interest has fixed a patient against him. The physician wonders why the patient never comes back. After a few days the woman finds that she is worse, the discharge has increased and she has pain on urination. She goes to another physician who examines the discharge microscopically and finds the gonococcus. He gives her a compound prescription and she takes it to the pharmacist to have it prepared. He charges a fee for filling the prescription and tells the woman she has a good doctor.

I believe that the doctor who writes compound prescriptions will hold out longer in the profession than the doctor who writes simple prescriptions; and I further believe that those who use the established form will be in the profession when those who use the King's English have dropped out where they belong. The greatest objection I have ever had to *CLINICAL MEDICINE* has been the dead easiness of the formulas, which makes it a source of danger, even on the doctor's desk.

L. B. EVANS.

Baltimore, Md.

[Dr. Evans' comment is a very interesting one—and yet we dissent largely from what he says. Of course we cannot be responsible for the copies sold by physicians to the Salvation Army and by them huckstered about the city of Baltimore. We have never heard of our journal reaching the laity in this way before, and in our opinion the number disposed of thus must be very small. However, there is a possibility here. We do the best we can to keep *CLINICAL MEDICINE* away from laymen, so our skirts and our consciences are clear—unless, as Dr. Evans suggests, we invite self-medication by printing formulas in English instead of Latin. But do we? I doubt it. My experience has been that the average layman's interest in a remedy is in direct proportion to the amount of mystery with which it is surrounded. Clothe your language with obscurity, suggest that your remedy is a thaumaturge, give it a multisyllabic name in a foreign language, preferably Latin—and he is attracted to it at once. Tell him about it simply, in plain English, and its attraction immediately wanes. In my opinion the day is past when we can or should profit by the *appearance* of wisdom.

It certainly is true that the prescriptions which are cut out of the newspapers or the medical journals and books by laymen and taken by them to drugstores are almost invariably those supposed to contain something unknown—a thaumaturge. For instance the prescriptions in Hare's "Therapeutics" are written in excellent Latin.



Patent-medicine makers thoroughly appreciate this fact. Why was it that the "celebrated" "kargon" prescription made a fortune for its makers? Simply because they took advantage of this trait in human nature. I sincerely believe that the use of plain English about disease and remedies, even with the laity, will do good by taking some of the mysticism out of medicine, a relic of middle-age monasticism, replacing it with what is infinitely better—common sense.

One thing Dr. Evans' article certainly does prove—i. e., there are many instances where the doctor should dispense instead of prescribe. Dr. Evans' stories about the woman with the vaginal discharge, and of the eminent druggist who was "mixed" as to the official substitute (isn't the whole substitute suggestion dishonest?) for glyco-thymoline seems to me to prove this. If there were any possibility of my prescriptions going into the hands of a druggist who would assume the superior wisdom to advise my patients I certainly would quit him instant—*and if there were many like him in my neighborhood I should be powerfully impelled to supply my own remedies so that I might know that no druggist was trying to stab me in the back. Wouldn't you?*

And when the men who *made* the National Formulary do not know what the remedies contained in it are or undertake to suggest from their unwisdom their use as substitutes for remedies of which they know even less, it certainly does not become them to undertake to instruct the medical profession as to what it should or should not use. That's the way it looks to me.

Now, I am willing to make any changes in CLINICAL MEDICINE which will be of service to the whole profession. All I want is to be *shown*. I'm not a Missourian, but I've been there.—ED.]

#### TEXAS AS A DOCTOR'S HOME

Your notice in CLINICAL MEDICINE has brought me a flood of letters from doctors. Two of these I answered but see myself compelled to answer the rest through the

journal. For the benefit of all inquirers I will say that my practice for the last nine years has run from \$2500 to \$3000 or a little above. Land can be bought here (Tulia, Tex.,) now for 15 to 30 dollars an acre, but is advancing fast. It is a level prairie country and I believe it is the finest farming country on the globe. We simply raise everything to perfection that we want; Indian corn, wheat, oats, barley, spelts, Kaffir corn, milo, vine crops of all kinds, all to perfection; all semitropical fruits, the finest grapes with the least attention, all small fruits and berries, watermelons and garden vegetables of the largest and finest in the world.

We are in what is known as the shallow-water belt, and there is abundance of the purest, clearest, coldest water at from 20 to 80 feet; and we pump it up with windmills and could irrigate gardens and orchards, although they scarcely ever need it! The "Panhandle" of Texas, known as the *llano estacado* (or staked plains of Texas) is all gently rolling prairie, every foot naturally as rich (or almost) as nature can make it, and a country of such magnificent distances that we only record our land by sections (640 acres) or 4—6—8—10, and all the way up to 25 sections, as this land has been very cheap in the past, having been mostly set apart by the State for free-school purposes. The large cattle syndicates had it leased at a nominal rental from the State and succeeded for years in making most of the people believe that nothing would grow here but grass and sorghum; but the man with the plow and the hoe has conquered all this and Mr. Cattleman has had to fold his tent and wend his way to other pastures, and you can now often see five or six steam-plows and as many threshers running at the same time.

We are now cutting this land up into 40-80-160- or 320-acre tracts, as purchasers may desire, selling on time to suit the purchaser. Many of these are paying their expenses as well as for their land with the first-year's crop. The country is settling up fast, and towns and villages, and even cities, are springing up as if by magic, all done by a good, industrious class of well-to-do people.

It is conceded that this country is too large for any small-principled man to stay here, he just simply won't fit into our grooves.

Now, the M. D. that will occupy the field that I have just vacated, if he is big-hearted and honest, will be strictly in the swim. (Please print in *our* journal and oblige.)

H. T. CLARK.

Tulia, Tex.

[Dr. Clark some time ago asked us to put a note in *CLINICAL MEDICINE* concerning an opening in Texas. This appeared in the "Nuggets." He was so flooded with letters that he found it impossible to write every one personally. He now asks us to print this little article, as a general answer to all inquirers, and this we take pleasure in doing. Texas is a great fertile empire and in its development "our boys" should have a share.—Ed.]

#### ANOTHER "POSY"

I do not believe that any other man has done more to teach physicians how to cure patients than have you. *THE AMERICAN JOURNAL OF CLINICAL MEDICINE* continues to grow in interest, and I trust in circulation. I am proud to be allowed to be a contributor.

I am glad to know that the Abbott "posy" was not "born to blush unseen and waste its sweetness on the desert air."

HORACE. R. POWELL.

Poughkeepsie, N. Y.

#### A MECCA FOR THE TUBERCULOUS

Ten years ago the French Government sent out a commission of experts to study tuberculosis in different parts of the world. Not having the report of this commission at hand, I can only give its substance as I remember having seen it published in the lay press. It was, that in the United States of America they had found an area of country having for its center a point near Higgins, Texas, around which, through a radius of about one hundred miles, tuberculosis does not exist.

Clinical observation bears out this broad statement. I have been located near the center of this tract for the past two years and have never seen a case of tuberculosis contracted here. I have never known of a death from this disease, except in a very few instances in which the disease was in an advanced stage when patients arrived. All practitioners with whom I have corresponded bear out my statement that the country is practically free from tubercle bacilli.

The following climate peculiarities are among the most prominent, as gathered from different sources:

1. As to elevation and climate. The elevation is 2300 feet above sea level. Climate is mild, nights always cool, ranging from 60° to 70°F. and even lower between sunset and sunrise during the hot months of the year.

2. The air is never still. Prevailing winds are from the southwest, from the dry plains of Arizona, New Mexico and southwest Texas.

3. The general topography of the country is unusual, the North Canadian River being on a ridge 500 feet higher than the Cimmaron on the north and the South Canadian on the south; the distance between the two last-mentioned streams is about 65 miles. The North Canadian occupies a position about half way between, so that the drainage is excellent, there being no dead water at all to cause trouble.

4. Within this area lie the great gypsum beds of the world, estimated by the U. S. geologists to contain about one hundred twenty billion tons of gypsum. Everything is impregnated with it; the earth and water, and no doubt the air, contain some of the calcium sulphate.

As sulphur and lime are our greatest germicides, this seems to me to be the most reasonable theory for the existing immunity, but if the cause be never known, the main fact of this article must not be lost sight of, that is, that this country is practically immune from the White Plague, and these thousands of acres will furnish homes for millions of tubercular patients. This section was the home of the American buffalo,

which was never known to be afflicted with tuberculosis. Mr. Armour, shortly before his death, stated that he had never known tuberculous beef to come from this range country.

This country can afford work for the poor and the rich can obtain here all of the luxuries and comforts of life, as well as find paying investments for some of their surplus coin. So that none, with ambition to live free from tuberculosis, need be barred.

E. E. FLAGG.

Mooreland, Okla.

#### FLORIDA AS A DOCTOR'S HOME

Would it not be a good idea to ask the "family" in your next (or some other) issue, to tell all they know about asthma, in the next all about diabetes, in the next all about Bright's disease—one disease in each succeeding issue? Select one of the hard ones. Give plenty of latitude, draw out idiosyncrasies as viewed as peculiar by doctors and patients, conditions, circumstances, remedies, etc., etc. You will puzzle and astound yourself as also the "family."

There is a vast quantity of latent power and skill hidden among the country doctors and kept by them, unknown to the city brother and to the Brotherhood of Man—the profession. They must and do dig up from hard necessitous experience, not met with in city practice, nuggets of golden knowledge which would be most welcome to the readers of the journal.

I noticed in a journal, some time ago, a letter from a brother in New Mexico asking the afflicted to come there. It is "O. K.," a capital idea, to let the "family" know what to do with the thousands of chronic invalids in their midst who are only a disgrace to their physician and need a change of climate more than any other thing. I have had eight years' experience (winters) in a land of perpetual sunshine and eternal spring (Florida), and would devote time (but not postage) to tell any doctor of the conditions.

There is not a doctor within twenty-two miles, but should be and will be. The climate is the best in the United States; the

water good. Asthma is unknown in this part of Florida. The writer has nothing to sell or gain, only the thanks of the suffering.

J. H. McCARTNEY.

Rochester, N. Y.

[The doctor's idea that we should devote special attention each month to one special disease is an excellent one—indeed, it is one that we have long had in mind, as old readers of *THE CLINIC* will recall, one that we have occasionally put into practice in these pages. Now I propose that we make a "new start" at once—that is, as soon as we can. We will therefore assign the topic "Asthma" for discussion in the January number. Let everyone who has had ideas and experiences with this disease (and who has not?) begin to rake over the memories, casting up results, and then report in *CLINICAL MEDICINE*. I say *everyone*. I mean it. This is not one man's work. It is a division of toil—a responsibility which devolves upon all. Therefore, for January, "How do *you* handle asthma?"

The Florida opening seems a good one—and by a strange coincidence especially good for some doctor who has asthma, and who on account of health desires to get away from our trying northern winters. Given a little asthma—and a little money—this opening should find plenty of "takers." Who speaks first?—Ed.]

#### SOME QUESTIONS ABOUT OBESITY

"DEAR DOCTOR WAUGH:

"In your paper on 'Obesity: Its Rational Cure' (*THE ALKALOIDAL CLINIC*, August, 1902) you sternly set your face against the large consumption of liquids to prevent and cure obesity.

"Dr. Elias Metchnikoff recommends large daily quantities of buttermilk to prevent and cure arteriosclerosis. Which of these two precepts should a middle-aged obese person most profitably follow, in the absence of any special indications?

"In your above paper on obesity you lay stress on small quantities rather than specially selected food.

"Dr. Brandreth Symonds (*Med. Record*, Sept. 5, 1908) shows that according to recognized statistical tables diabetics claim from the obese five times more victims than from others.

"The principal treatment of diabetics consisting in dieting, i. e., consumption of specially selected food, would the reduction of obesity on your principles reduce the mortality of diabetics according to Dr. Brandreth Symonds' statistical showings?—HENRY RICHTER."

My paper quoted above was upon the treatment of obesity, not that of arteriosclerosis. The two do not necessarily coincide. If the latter be present, this affection, as the more serious, should constitute the main indication for treatment. Metchnikoff's observation is valuable, but buttermilk is not the only remedy for arteriosclerosis, is not necessarily the best, nor one suited to all cases.

The question is not clear. We may have the patient referred to as "obese middle-aged," free from arteriosclerosis or already affected by it. In the former case I should not consider the buttermilk as indicated but treat the obesity; and here the dry diet is the most effective single agency at our command.

If he is already affected, his vessels atheromatous, heart hypertrophied, vascular tension elevated, I do not see why we should raise the tension still higher by forcing into the circulatory area a large additional bulk of fluid. In fact this vascular tension would itself constitute an indication to reduce the bulk of the blood by restricting the intake of fluids.

What useful function does the buttermilk fulfill if it be not that of powerfully stimulating renal elimination—as it does. Let me say here that during my active practice it was a routine with me to instruct pregnant women to drink buttermilk daily; and I never had a solitary case of puerperal eclampsia, or saw a case except in consultation, and then I was only called when labor was beginning. So that I need no evidence or "authority" to convince me of the power buttermilk possesses in sustaining full renal

excretion of the toxins that arouse convulsions.

But buttermilk is not the only effective diuretic, and for the obese atheromatous case assumed we may well combine the dry diet with those sovereign remedies, veratrine, to incite general elimination and relax vascular tension, and arsenic iodide, to promote the absorption of the arterial deposits not as yet extravascular and hence beyond the reach of circulating drugs.

Veratrine nicely proportioned to the case does not disturb the digestion or depress the heart—in fact it eases the latter because it lessens the peripheral resistance that induces cardiac overaction and hypertrophy. This priceless remedy also removes the cause of the abnormal tension by stimulating the excretion of toxins by all the emunctories. The dose must be apportioned to the case, but one granule, gr. 1-134, before meals and at bedtime, may be taken as a tentative dose, to be raised or lowered as the results indicate.

Of arsenic iodide, 1-67 grain four times a day is an average adult dose, and usually suffices. It may be continued for a year, the dose being reduced whenever itching of eyelids denotes toxic action; just as the sense of burning outlining the stomach shows overaction of veratrine. In this case, however, the warning symptom may be caused by swallowing a granule whole, when the veratrine comes almost undiluted in contact with the wall of the stomach. Give the two together dissolved in one ounce of water.

The second is also a duplex question: Is the hypothetical obese patient diabetic or not? If not, you may safely reduce his girth and at the same time lessen his chances of diabetes by following the simple but fundamental rule; if his intake be less than his output he will approximate normal dimensions. If such salutary restriction of diet be observed the digestive system will not be thrown into disorder by oversupplies of nutriment, and one most important cause of disease, including diabetes—and that of premature death—will thereby be removed.

If the unlucky fat man be also a victim of diabetes, the latter presents the most pressing

indication for treatment, the obesity figuring as a secondary one. Dieting in diabetes is not so simple a matter. Restrict carbohydrates too closely and acetonemia supervenes. One patient may then do well on oatmeal, or on potatoes, or on maple-sugar; however another following dozen fare badly on any one of them. The diabetic *must* diet, and he must flush this system with a copious supply of water, whether obese or not; he must keep up the supply of water excreted. But the diet of diabetes is, apart from this free use of water, well calculated to reduce weight; another free use of water is neutralized by the free urinary discharge.

I thank our friend for submitting these questions. They are exceedingly valuable specimens of the complex problems presented clinically. The student is always puzzled over forming a rational conception of the cases he meets and making them fit the descriptions in his books. He may have learned the murmurs indicating the stenotic and regurgitant lesions of each cardiac valve, and his first case may reveal stenosis and insufficiency of the mitral and the aortic valve, and tricuspid disease, with an enlargement in which his inexperienced senses may be unable to distinguish clearly dilation from hypertrophy. Then if the urine gives unmistakable evidences of nephritis, the liver and spleen are enlarged, the hemorrhoidal veins bleeding, his classification of the case is difficult enough—though a matter of course to the older practitioner.

WM. F. WAUGH.

Chicago, Ill.

#### THE ACTION OF HIDDEN FORCES THAT WE IGNORE

Is there a medical practitioner who does not find himself sometimes up against some problem that he cannot solve—some antagonist that seems to laugh at his efforts to overcome the ravages of disease? Does not the fact that some diseases are pronounced incurable prove that in some directions we run up against an apparently impassable barrier?

The community is struggling with the leper problem. Here in Boston several suspects have been sent down to the leper colony under sentence of lingering death, a sentence pronounced by the medical profession, the political press, and the benighted ignorance of the community at large.

Is this disease incurable? Has there never been a cure expected? I pass by the records of the Evangelists, according to which the Master cleansed ten at one time, and refer the reader to the law of leprosy in Leviticus 18 and 24. These entire two chapters are devoted to the diagnosis and treatment of this dreaded disease, and to the purification of the house. Verse 34 of chapter 14 furthermore implies that the infection might strike even the substance of the house before it expresses itself in the person of the inmate, and that this infection might have a psychic origin.

Well, this is not along the line of modern therapeutics, but the implication carries the weight of a fact. And another strong implication is, that the patient was cleansed sometimes. That this is a matter of the long-gone past, where men's imaginations played strange tricks with them and threw a thick covering of unreality over their records—at least this is the convenient refuge of the skeptic—will probably be the verdict of scientists. But does this solve the question that exists in many minds? Or is there not something in this question in these same minds as to whether it may be that we do not quite understand this process of isolation, suggestion, and sweet oil, with its terminal sacrifice of the bird, or the lamb—which latter savors of the mysteries of Chaldean magic, which seems prominent in this Mosaic formula.

I am not writing these suggestions for the amusement of materialistic skeptics, nor to invite their arguments. I don't care for them. For years of my life I was as blind an atheist as this world ever held, and I know what weak weapons the skeptic wields, for I have had them shatter in my own hands. Nor am I suggesting the formula of the Mosaic law as a method for our day and generation. Let a man read Paracelsus



honestly and understandingly, and he will see the terrible danger of handling that system in these days. But I am questioning whether by granting the fact that all disease is of psychological origin, and moving in harmony with that suggestion, we might not, with the means we have at hand, banish the word "incurable" from our lexicon.

That the action of these hidden forces is something to be reckoned with is becoming a belief with many, although not openly confessed. Its manifestations along the lines of history are well marked. The action of Acleon (Joshua 8) is an illustration of how a psychological condition could be brought about in an army of 3000 men by the violation of the Divine command by one of them, that made that army fly like sheep—an experience, which, with the fall of Jericho fresh in his recollection, was a stunning blow to that old fighter, Joshua.

Years later a Syrian general came to Samaria with a request from his ruler, addressed to the king of Israel, to cure his favorite of leprosy. There had been time for Syrian as well as Israelite to forget the details of the Divine treatment as given by Moses and Naaman, little thinking that the power of restoration lay with a strange old tramp—despite the fact that his little captive Jewish maid had indicated "the prophet that is in Israel"—came to Jehoram, the King, and gave that worthy the scare of his life. Now it would seem that the law of isolation of leprosy cases did not obtain in Syria, although it still held sway among the Jews. Somehow the Jews seem to have attained to our height of medical science, they knew enough to isolate their lepers but had forgotten how to cure them. But the point I wish to indicate is, that, while Naaman was surrounded by his servants and lived in his own palace, none of those who lived in close touch with him seem to have contracted the disease. Gehazi did get it, for disgruntled with the way in which his master had let this easy opportunity for "graft" slip through his hands, he went after Naaman and secured it himself—and got an attack of leprosy that lasted him for life.

I will come back to my original subject by easy steps. And for a moment I must notice Dr. Gould's article in the January number. I notice your editor is on the fence, thereby giving emphasis to his general reputation for good sense. I notice also that you want someone to answer his article. But I fail to see how anyone can refute his statements. His statement for instance that legislative action is a failure is absolutely true. Legislative meddling with medicine, science, religion or even politics has always failed, and always will. Why, after the Republican State Legislature had tried in vain for years to make Boston a republican city, it finally passed a law restricting any voter from voting for more than seven of the thirteen aldermanic candidates. This resulted in getting six republicans into the Board of Aldermen, and then began a reign of barter and trade that nauseated every decent citizen. After failing to elect a chairman, they finally compromised by giving the seat to a republican for six months and to a democrat for the same time, and the question which should have the first innings was decided by flipping a quarter in the Mayor's office. But this isn't therapeutics. In this matter Dr. Gould simply writes history in advance.

But the words of Dr. Gould which impress me most deeply are these, and I may say that they are what inspired this article. He says:

"Of all unholy stupidities, do not believe there is no cure. The cure and prevention of disease, of most of the diseases which curse our world, is possible. Perhaps not by the methods now suspected or that have been tried, but still, really, by some method."

Gloriously true words, and would that they might be burned deep into the consciousness of every doctor in the land. But how comes it that so glaring heresy is found so far east?

What is it about these mysterious questions that impresses us with such dread that we fear to attempt to solve the problem why they are mysteries? Or is it the sigh of the greater wisdom and clearheadedness to limit the possibility of what may be by what we know, or think we know? Hargrave Jen-

nings truly says, "He who limits things by his narrow sense is a fool." Do we know what exists in nature? Very little, and that little may be a damage to us, unless it serves to show us our weakness, and the power and infinitude of the possible. A certain writer says: "Forms are ideas materialized—ideas are eternal—but forms are evanescent." And many an acknowledged fact of today is the diaphanously shadowy idea of yesterday. Someone placed a barrier in its path and retarded its rapid motion, and it became matter—material fact. What is the limit to this progress, let me ask, if you grant the fact, for the sake of the argument. And let us go one step further and ask why an idea in the mind, no matter whence it came, may not descend still further and receive confirmation in the thought as a fact, reach its final ultimatum in the physical system and develop into a diseased condition?

This is "therapeutic nihilism," some may say, "and one might as well accept Mother Eddy's doctrine *in toto*." I fail to see it in that light. The Eddyite claims that all disease is of the mind and can be removed by mental suggestion. I have made no such claim. We know nothing, as a general thing, of the presence of the fact of disease until it has expressed itself in the body, and then I unequivocally assert that it has got beyond the power or reach of mere mental suggestion. That is where I seize my cartouche of Abbott's granules and go after the "varmint" that has got into the barnyard without tendering me the poor courtesy of a preliminary growl, and I don't stop to ask myself whether it is a catamount or polecat. The frantic disturbance among the animals is sufficient proof that something is there that has no business there. If this is "therapeutic nihilism," make the most of it.

Now I am going back to that antiquated old Bible again, and call attention to chapter 38 of the Book of Ecclesiasticus—and pardon the suggestion that it is one of the books of the Apocrypha. It is a masterly thesis on medical practice—containing a good word also for the druggist—and insisting on the recognition of the truth that disease is pri-

marily a condition of the mind, that unexplored arena of battling forces which is so little understood by the materialist, and which is at times overrun and ravaged by strange and uncanny marauding bands from unknown realms. The whole presentation of the matter lies in the first fifteen verses, and terminates with the suggestion, "He that sinneth before (against) his Maker, let him fall into the hands of the physician."

There is a suggestion in Naaman's parting words with Elisha which seem to indicate a thought on his part that his leprosy was not a purely physical condition. He has come into touch with a power that none of the gods of Syria had ever manifested, and it seemed to him that it would not do to ignore the God of Israel, and seeing that his duties to his king would bring him into the temple of Rimmon, the Syrian idol, he begged that the God of Israel would see that he meant nothing by it. Elisha acquiesced in the compromise:

Now what is the meaning of all this raking among the dusty myths of the past? The meaning is simply that contained in Isaiah 30: 21, "Thine ears shall hear a word behind thee, saying, 'This is the way, walk ye in it.'" It means that it is getting time to divest ourselves of some of our pride of self-derived intelligence, and see if we cannot get some light from the past, when men lived nearer to God because they lived nearer to nature. Men in this age are boring downward instead of looking upward for the origin of the law of causation, forgetting that everything has its inception in the realm of Mind and Spirit before it can come into manifestation on this material plane of life.

Gautama, the Buddha, says that "the most fatal diseases enter through the eye." There is a measure of truth in this, as all of us may know, for through the eye the imagination is fed and the passions may be aroused to the commission of acts that poison both soul and body. But I do not believe disease often enters from without. That which is external simply wakens up that which is already within. Were it not for that awakening, the seeds of disease might slumber through life.

What causes epidemics? Bacteria? Humbug! The whole country is in the grasp of pneumonia and gripe. Why? Because people were looking for it, expecting it, fearing it, until the whole community is coughing it, sneezing it and spitting it. During the month of December last there were 217 deaths from pneumonia and 45 from gripe reported in Boston, and the report of the last three days not in. During the entire month of December, 1906, the deaths from pneumonia were 144 and from gripe 8. A fine comment on our improved methods of medical treatment. Or is there another element in the line of causation at work last winter, which was exceptionally mild in 1907-8? I will not mention astrological conditions, for that is not therapeutics, although rare old Nicholas Culpeper seemed to have the idea that astrology and therapeutics were related. (Pardon this mention of taboo subjects, my dear Dr. Abbott, I won't do it again.)

But I suggested that a different force seemed to be working last winter, and that is the general depression of the public mind resulting from the financial disturbance. A man can take an enforced vacation of a few days and nurse a cold, knowing that his job is secure, but when he can count the lumps of coal in his bin, and see the bottom of the barrel through the thin layer of flour therein, and his job likely to go, with no Elijah to check the waste of the meal and the failing of the oil, his surplus energy for the war against disease fast leaks out. This is not a physical condition, but purely mental and psychic, but a physical condition results from it. It requires no great argument to induce one to grant this, but when you do, where will you stop? The onward pressure of truth and fact does not cease because of any barrier you can throw across its path when a turn in the road takes it out of your sight.

Just here let me diverge to relate a recent experience. I had been visiting in another part of the town, when on walking up the street I became suddenly conscious that the influenza had got me. The peculiar sneeze, and hard, dry cough were too potent arguments to be met with one of Mother Eddy's

"demonstrations." I was thinking of my bottles of calomel, defervescent comp. and coryza comp., but in fact I was not impressed in their favor just then. But the thought of my old friend elecampane came into my mind. (I have never used helenin, but I shall hereafter). Well, I stopped in seventeen drug shops on my way up, and not one of them had it. They could get it for me. O yes, but I can do that myself, for Cheney & Co. have a reliable article. The callow drug-clerk regarded me with a stony stare and said he "never had heard of the stuff." I remarked that if he were going to attempt to tell the things he did not know he would find life too brief for his purpose. The last place I stopped at I was informed by the proprietor that he considered it a most valuable remedy, but he "never had any call for it." No wonder people are dying of gripe and pneumonia. I quite agree with the "Gleaner" in the January CLINIC regarding helenin, for what the drug can do the glucoside can also do—in my opinion; and it is going to find a place in my satchel hereafter. This is only an aside for the quieting of those who feel disposed to bark at my transcendental utterances—a sort of "sop to Cerberus."

It is time I finished this paper, but there is one authority that must not be lightly passed by:

The Master prefaced most of his cures with the words, "The sins are forgiven thee," but I can but think that the meaning of this sentence is misconstrued. It cannot be held that the only sinners in Judea were the poor, halt, blind and palsied who thronged about The Divine Man. For were this idea tenable, every Pharisee would have been under the doctor's care, for The Master evidently considered these fellows as the worst of the whole lot. But the words "*apheontai soi ai amaptiai sou*" will bear a different interpretation than the theologians have attached to them. The word "*apheontai*" means "deliverance" rather than "pardon," and "*amaptiai*" means, often, an error in thought or judgment, a principle, or condition of mind that might lead one to error. The theologians will not agree with me, but

I am not writing for that ilk who, judging from the unlimited endorsements they are giving the concoctors of drunkard-making dope, are lacking in medical judgment, to say the least; but let them slide. What I am insisting upon is, that this wisest and truest and grandest figure of history, whether you agree or not with me in acknowledging His Divinity, the one who knew and controlled the forces of nature, and spake as never man spake; He saw behind the veil that we allow to hide things, and knew that behind all this disease and suffering there was an action of hidden forces that the *savants* and doctors of his time denied and ignored.

I have not written this article in any dogmatic spirit or as claiming any superior intuition of revelation. It is only with a desire to suggest inquiry along certain lines which perhaps might lead us to some better understanding of how and why we fail, and start some of our honest investigators along the path of some discoveries. What those discoveries might be one might not be able to clearly indicate in advance. But if some day some adventurous explorer should discover and reveal the fact that hidden forces are acting on human life, it might be a step toward the greater discovery of how to deal with and control and oppose those forces when their action tends toward the increase and acuteness of disease and suffering.

JAS. R. PHELPS.

Dorchester, Mass.

#### THE MEDICAL SITUATION: AS MICHIGAN SEES IT

To an ordinary observer the whole medical profession seems to be organized into an immense financial syndicate. According to *Leonard's Journal*, during 1906, the A. M. A. took in \$270,000. How much more since then nobody knows but the men "in the saddle;" for they refused to have the books audited. Formerly we had our local society here with a large membership and regular papers with interesting discussions, the dues being one dollar a year. Now the dues have been raised to \$5.00 for the local

and state society and \$5.00 for *The A. M. A. Journal*, making the whole \$10, the dues being so high now that many of the most useful men have been forced out of the society.

The "postgraduate" courses have been established, and the society now is of very little interest to anybody in the profession. Here we have some of the recent graduates, with little or no experience, attempting to give us a "postgraduate" course, talking to the bare walls and threshing out old straw. We would all like to take a postgraduate course in the proper manner with eminent specialists and an abundance of clinical material, but the present "p. g.," as they call it, seems very much like a farce to the ordinary observer.

It is well known that the doctors have been cutting their own throats for years by writing prescriptions, educating druggists and drug clerks to prescribe and take away the doctor's business. Whether the medicines be "dosimetric" or "polymetric," prescription-writing is the wrong principle in the practice of medicine. The prescription business, as a rule, throws the doctor's business entirely into the hands of the druggist, drug clerks and bottle washers, who publish and hawk about much of our business which ought to be strictly confidential. In many cases the patient has only enough money to pay the druggist, while the doctor goes hungry. The druggists have made thousands of dollars out of my business and time and again has it occurred to me, when I wrote a prescription, that the druggist would give the patient a lot of his own "stuff" and then send him to another doctor. These are only a few of the reasons why so many doctors have quit the prescription business.

There are many prominent physicians who think that the profession has ceased to be respectable. Some of the druggists who fail in their legitimate-illegitimate business, open offices and call themselves manufacturing pharmacists, treating venereal diseases, anything that comes along or anybody who is willing to employ them. It is well known that this is one of the principal causes

of so many uncured cases of syphilis and gonorrhea and it is also well known that venereal diseases are undermining the whole nation.

If there is any way whereby the doctor may be protected, here is where the work must be done. We must have the laws enforced and all these quacks and frauds driven out of the profession. We ought to have public prosecutors in the different states, who would prosecute these frauds and be paid by the state, or fines imposed by the courts. This plan has been adopted in Ontario and has worked in a very satisfactory manner. We have prosecuting attorneys, but nobody wishes to take up the work, the doctors considering it disreputable, and the lawyers refuse to work without first having reliable evidence.

Now if we only had the laws enforced, or any kind of a law whereby we could get what belongs to us or a part of it, we could all put our shoulders to the wheel, join hands with the A. M. A., take the journals, attend all the meetings in good style and assist in keeping up the dignity of the whole profession. This is one of the most important problems before the medical profession of the United States at the present time, and now with all this alleged vast amount of money constantly accumulating, here is a chance to confer an everlasting benefit upon us and bring order out of chaos in the medical profession.

GEO. A. WILLIAMS.

Bay City, Mich.

[Dr. Williams gives us something to think about—something which we shall take up and discuss later. The possibilities for doing good to the *whole* profession within the power of the A. M. A. are almost illimitable. Why does it not undertake some of them? Why not cultivate a spirit of helpfulness instead of one of discord and strife? —ED.]

#### ALAMOGORDO, NEW MEXICO

I desire to call the attention of the fraternity to this valley as a health resort for

consumptives and those afflicted with weak lungs. The valley is sheltered by the Sacramento and White mountains on the east and the San Andreas mountains on the west. Thus we are protected from the cold northern winds, making the climate very mild and equable in winter time. The atmosphere being so dry the summers are quite pleasant, especially since the altitude is little over 4000 feet, which precludes too hot summers. Then we have a fine summer resort in the Sacramento mountains, where patients can find a pleasant retreat in summer-time, if they so desire.

The city of Alamogordo is situated at the foothills and is a most charming place with its thirty miles of shaded streets and a fine park. A splendid sanitarium is located here. For anyone desiring to retire from active work, and at the same time escape from the cold winters of the north Alamogordo presents the ideal location. On account of the financial stringency, property can be had very reasonably at present.

The valley will some day become famous for its choice fruits, since finer flavored fruit cannot be found anywhere. Some day this whole valley will become one great orchard, interspersed with beautiful alfalfa fields. Now there is plenty of land here to be found, and land is cheap. There is some good government land that is still open for entry, and quite a few relinquishments that can be bought at right figures. It is mostly a pumping proposition, though some irrigated land can be bought, and a small quantity of land that is located under ditch. I don't know of a finer proposition for a small investor than right here in Alamogordo valley.

Should anyone desire further information write me, enclosing a stamp for reply, and I shall be glad to comply with the request.

G. A. BROADY.

Alamogordo, N. M.

[This will doubtless interest some of the members of the "family," who for health's sake are seeking locations in the Southwest. The trouble is that most of these health-



resorts are overrun with doctors. Perhaps it's different here—or possibly the opportunities along non-professional lines are sufficient to balance the professional drawbacks. Doubtless Dr. Broady can tell all inquirers. Don't forget the stamps when you write him.—ED.]

#### THE SALOON QUESTION: "AN APPEAL FOR A SQUARE DEAL"

True, very true, Doctor Abbott, "Men do not deliberately choose to become drunkards." Nor did that lad who stole a cent out of his mother's pocket deliberately choose to end his days on a scaffold for having committed highway robbery and murder. The appetite for sin grows with indulgence. Men have appetites and passions which it is their duty to restrain. The earlier in life this is begun the easier the task. One has an appetite for intoxicants, another has an appetite for money. The former says to the latter: "If you will give me what I crave I will give you what you crave." A bargain is closed. Each fills his part of the contract. Punish the one and not the other and you teach that the one who escaped punishment is not morally bound to restrain his appetite. A saloon can no more continue to exist without a patron than it can without a liquor vender. It is a duty incumbent upon all to emphasize the fact that it is every man's duty to obey the command: "Be not drunken with wine." Were all to obey this law, as they should, there would be no demand for a prohibitory liquor law.

Yes, I believe in individual responsibility. The Bible teaches that "He that soweth to his flesh shall of the flesh reap corruption." We see a drunken man in the gutter. He is reaping corruption, therefore we know that he has sown to his flesh. You are called to treat a man with delirium tremens. No one could convince you that he has not sown to his flesh.

Fifty-four years ago I heard a temperance lecturer say: "The liquor trade transforms good, industrious citizens into drunkards,

vagabonds and tramps." I condemned this doctrine then and have condemned it ever since, as untrue. The Supreme Court of the Universe has decided that a drunkard shall not inherit the kingdom of heaven. This it would not have done were not the drunkard responsible for his drunkenness.

A generation has been indoctrinated with the idea that "the saloon is the cause of drunkenness." What is the result? Let the Permanent Committee on Temperance of the Presbyterian Church, which met at Kansas City last May make answer, as follows:

"Despite the increase in prohibition territory in our country, the voting out of thousands of saloons, the tremendous efforts and enthusiasm of whole states, we are compelled to note an increase in the consumption of alcoholic liquors. The statistical abstract of the United States government shows that during the last fiscal year the per capita consumption of liquors of all kinds reached the startling amount of 23.53 gallons, at a total estimated cost of \$2,275,000,000, or \$26.50 for every man, woman and child in the nation." (Page 11.)

In 1850 the consumption of distilled liquor per capita in the United States was 2.5 gallons, and of all other intoxicants it was less than 4 gallons per capita.

I need not tell you that law is an educator, what it condemns is deemed wrong and what it commands, or sanctions, is deemed right. From the foregoing you can learn the result of teaching prohibition doctrine. Were a physician to experiment with a patient for fifty days and at the end of that time to report that his patient was in a worse condition than he was when he began the experiment, would you think it wise for him to continue the experiment? I should not.

S. HENRY.

Camp Point, Ill.

[This article is Dr. Henry's reply to our comment upon his earlier article, published in the September issue. While we do not care to prolong the discussion we are always glad to give "the other fellow" a hearing.

In the article that follows the other side is presented. Every reader of CLINICAL MEDICINE knows how *we* stand.—E.D.]

#### SHALL WE PUNISH THE SALOON-KEEPER OR THE DRUNKARD?

I cannot resist the inclination to answer Dr. Henry, who wrote in the September number of CLINICAL MEDICINE. I, too, disagree with the doctor. Prohibition not only does prohibit the sale of intoxicants, but it *does* cultivate a sentiment against the drinking thereof. This is a prohibition county. There are hundreds of men here who ten years ago believed that to vote out the saloons was interfering with the personal liberty of him who sold and him who drank; but now many of them are not only strong prohibitionists but discourage the drinking of intoxicants.

The temperance plan has been tried for a century and did some good, but the saloons grew in number, ditto the manufacturing establishments, and the low dives also continued to increase. High license was brought on by the war, and afterward was tried as a temperance plan, and was a failure. The country filled up with drinking classes from other lands. Crime and drunkenness were on the increase, and the young men and boys of our country exposed to the devastating influence of the liquor traffic; many of them were led off first by the drink demon, then into crime of every description, and on their way to eternal ruin. What could be done? The only recourse was prohibition.

What is a saloon? It is a parasite. It takes money from people and gives them nothing of value in return. Saloon keepers are not producers. They live off the people, and not only do this, but in return for their money make them drunkards and criminals, fill our jails, penitentiaries and insane asylums, make widows and orphans and worse still destroy virtue and both soul and body.

What are we to do about it? Shall we let a little matter like the druggist losing the custom of the gentleman (?) Dr. Henry

spoke of stand in the way? No, forever no! Such gentlemen (?) should move to the Cannibal Islands. Let the good work of prohibition go on. This government has no moral right to license an evil. This government licenses men to sell poison that befuddles men's brains, makes them temporarily insane, then punishes them for the crime they commit while under the influence of the hell-born stuff. The saloon keeper should be punished by confinement in the penitentiary for every felony committed by the drunkard, and the drunkard confined on the convict farm until he reforms, or, better yet, make him work on the public roads of the country, and the government pay him a reasonable sum for his labor and give it directly to his family.

It is coming. The time is not far distant when the liquor traffic will be banished from the country. That and that alone will solve the temperance problem.

With a majority of doctors, ninety-nine out of a hundred of the true preachers, a large percentage of congressmen and legislators, all true, pure women, and fifty percent of American-born voters against the liquor traffic, one can see that the day is not far distant when it will hide its venomous head, leave "the land of the free and the home of the brave," and be forced from the country. God speed the day! So mote it be. Amen!

G. W. WOODS.

Broadus, Tex.

#### DR. OSLER AND THE "PATHIES"

Dr. Osler, like many other scientists, believes in "rational scientific medicine," which covers and embraces all the "pathies." No man can expect to succeed by confining himself to any limited system or set of rules in the practice of medicine. Medicine is much like any other business in this respect, and in order to be successful a man requires training and experience, while using his judgment in adapting himself to the various conditions as they present themselves.

In most of the cases, about the best we can do is to assist nature intelligently. Now,

an individual belonging to one of the "pathies" comes forward and wishes to sweep away with a mere wave of the hand all the results of a hundred years of study and experience, declaring that he can cure everything by means of simple manipulation. Now we heard a story of a conceited rooster who became so unbearable that the hens formed a hen's club (just like one of our clubs) and after throwing this rooster down two or three times real hard, he became fully aware that he wasn't the only kernel on the cob. Curopathy is probably the best of the "pathes"—any "pathy" that will cure the patient.

GEO. A. WILLIAMS.

Bay City, Mich.

[In connection with Dr. Williams' little article (and with proper apologies to Dr. Osler) we print herewith a little poetical "squib," picked up out of one of the daily papers:

OSLER

Dr. Osler was 60 years old July 12.

"Doc" Osler's reached the age at which he says  
men ought to die,  
But has he picked the quiet place in which he  
longs to lie?  
He's up and doing still, they say, and planning  
as of yore;  
No hearse, as far as we can learn, is waiting at  
his door;  
No crape is fastened to the knob that still obeys  
his hand;  
He has not gone to twang a harp in any angel  
band.

"Doc" Osler's three-score years of age, his limit  
for all men,  
But probably he's hoping now to add another  
ten;  
He has not calmly gone to bed intending there  
to stay  
Until his friends with solemn tread shall carry  
him away;  
He has not put his work aside, nor ceased to go  
to meals;  
It may be that he sometimes boasts about how  
young he feels.

"Doc" Osler's sixty years of age and still alive  
and well;  
The world to him may seem a fine old place in  
which to dwell;  
But let us not upbraid him for the fact that he  
remains,  
Nor envy him for any of the pleasures that he  
gains;

Be charitable to the "doc," and, being so, let  
each  
Remember that the men are few who practise  
what they preach.

Congratulations, Dr. Osler! With all  
your faults and all your years we admire  
you still. May you live to be a hundred!  
—ED.]

### REUBEN'S PHILOSOPHY

I hear some people say this world is full of dark  
despair,  
That clouds and shadows, dread and fear, surround  
us everywhere;  
While others say it's full of hope and beauty, joy  
and bliss,  
Effulgent rays of sunshine always scattering the  
mist.

Some say that evil, infamy and vice are all around;  
Corruption and iniquity are always to be found.  
Yet I believe that virtue, truth and purity do prove  
The omnipresence of a God of righteousness and  
love.

Then hatred, spite and malice seem to fill the  
world, to some,  
And obloquy and rancor are some things that's  
overdone.  
Yet when we see around us so much tenderness  
and love,  
We know we're just a stepping-stone to that great  
world above.

There's fraud, intrigue, deception and deceit sur-  
round us, so  
That the meanness of their machinations startles  
us I know.  
We turn our faces toward the light and there  
before our eyes,  
Integrity, sincerity and honesty arise.

The pride and envy, callousness and coldness of  
our kind  
Make vanity and fickleness leave better things  
behind.  
Yet charity is world-wide and lowliness is here,  
Solicitude for others is a thing that's ever near.

Though cruelty is practised upon beast as well as  
man,  
And cowardly abuse has shocked us since the world  
began,  
There's still enough compassion left and kindness  
too, in store  
To make our lives worth living and to fill the  
world, and more.

As we walk among the lowly, then the world to  
us appears  
So full of want and poverty, our eyes are moved  
to tears.  
We think of all the splendor and the riches made  
by greed,  
And out of our abundance we divide with those  
in need.

Life's filled with bitterness and grief and misery  
and woe;  
It seems remorse, distress and fear will ever haunt  
us so,  
Until the charm of life appears, the charm of hope  
replete  
With courage, faith and comfort, and makes our  
living sweet.

A flood of levity comes on, or folly or satire,  
Or what is worse, of apathy, and halts us in the  
mire.  
A resolution then we make, we see that life is  
real;  
With fortitude we strive to reach the goal of our  
ideal.

We are never out of danger and ne'er from trouble  
free;  
The world is full of chaos, turmoil and jeopardy;  
But it's also full of blissfulness, there's peace on  
every hand,  
For equity and justice hover over all the land.

Now I learned when just a schoolboy, 'fore I ever  
learned to rhyme  
That two things could never occupy the same space  
at a time;  
So I tried my best to figure out just how these  
matters stood.  
How the world though full of wickedness was also  
full of good.

I came to this conclusion and to me it looks quite  
clear;  
That every individual upon this mundane sphere  
Establishes his own world, its limits and  
extent,  
So in speaking of the world it was his own world  
that he meant.

We can make our world just what we please, from  
North, South, East or West  
And limit all the people from the meanest to the  
best.  
We can have a world of darkness, we can have  
a world of light;  
Fill with shadows to obscurity or shine with radi-  
ance bright.

And instead of heaven above us, in the distance  
far away,  
We have heaven right within us, so the Bible  
pages say.  
The thing to do to make improvements in our  
world I'm told  
Is to get as much of heaven as our carcasses will  
hold.

Then we'll be just like a magnet and will draw  
none but the best,  
For I learned that like attracts its like and leaves  
alone the rest;  
Then as the center or our sphere, the things we  
have inside  
Will emanate and radiate and in our world abide.

When discord comes, we should devote ourselves  
with energy,  
To purify it in a flood of love and harmony.  
We fill our lives with worry over cares and yet  
we may  
Make this old world we're living in be brighter  
every day.

So cast environment and luck and such things to  
the wind,  
And if our world is faulty let's another world  
begin;  
And instead of the periphery, use the center for  
the start,  
And we'll never need to worry much about the  
other part.

H. K. HODES

Houston, Tex.

### THE SOLAR PLEXUS

The semilunar ganglia  
Send radiating branches out,  
To form a circle beautiful,  
In nervous network all about.

Unto this curious mesh of nerves,  
The *splanchnic's* silver cords are joined;  
The *pneumogastric* right is given;  
Some branches from the *phrenics* coined.

These form the *Gangliform Circle*,  
And give what's known to all of us,  
A combination wonderful—  
And aptly named—the *Solar Plexus*.

This combination in its turn  
Sends filaments to form a group,  
Some knots, or other plexuses—  
I marshal them, a comely troop

The *phrenic*, *gastric*, *hepatic*,  
The *splenic*, *suprarenal* ties  
The *renal*, *mesenterics* twain,  
*Spermatic*, which ne'er dormant lies.

These plexuses as lesser minds,  
Control and regulate within,  
The strange phenomena of life,  
Which God's own touch did there begin.

Digestion and its marvelous power,  
The stream of life in artery,  
And vein, distilling strength and health  
Where borne through the economy.

They strengthen, fortify, defend  
The citadel of life we share;  
Give vigor, tone normality,  
To organs with the greatest care.

This brain abdominal, Wisdom  
Hath planned, and hath festooned about;  
Not Chance, nor snarl of numerous chains  
Could thus create—and strengthen doubt.

We know the frame of man, 'tis wonderful.  
Endowed with life, and strength, and thought.  
He can but be God's favored son—

Behold the man! What hath God wrought?

JAS. A. DEMOSS.

Emporia, Kans.

### THE UNITY OF THERAPEUTICS

For fourteen years, as opportunity offered in various medical journals and societies, the writer has been advancing the idea that many diseases are due to extraneous forces disturbing the ganglionic nervous system, insisting that therapy in a large proportion of cases should be based upon this view. In other words, the curative power of some remedial measures, and many drugs, when administered internally, depends upon their influence over the ganglionic nerves; and their inherent selective power determines what organ or function shall be influenced.

Some years ago clinical experience and continuous study upon these lines made it clear to his mentality that the successes and failures of homeopathy were owing to the fact that the law of similars and the minute dose were only applicable when the abnormal condition was due to a depressed vital energy acting through the ganglionic nerves. When a stimulant to the vital force is needed homeopathy, properly applied, is uniformly successful, but when a depressant action is needed it is a flat failure.

If this is correct, its importance can hardly be overestimated. For the regular schoolman who adopts this view has no reason to refuse to adopt *similia similibus curantur* as a law of cure under proper conditions, and the homeopath can increase his efficiency by adding the law *contraria contrariis curantur* to his armamentarium without stultifying himself.

Inasmuch as Dr. P. W. Shedd, one of the editors of *The American Journal of Homeopathy*, admits (CLINICAL MEDICINE for May) that the existence of these two laws of cure, has been known from time immemorial, the adoption of these views would admit all homeopaths into general medicine except the very few ultra Hahnemanns now remaining.

The writer's disabilities as a pure clinician have prevented his presenting evidence from the laboratory in support of these views until now Dr. Thos. J. Mays has unintentionally remedied this defect. In *The Boston Med. and Surg. Journal* Nov. 2, 1907, he presents a paper upon "Immunity and Therapeutic Action," and in CLINICAL MEDICINE, January, 1908, a paper on "Antipyretics and Antiseptics," giving results of work in the laboratories demonstrating certain points.

Those apropos to this discussion are:

1. "That drugs expend their forces directly on the bodily textures and not on any hypothetical intervening medicine."

But when he goes on to claim that the textures primarily acted upon are the muscles, the writer takes issue with him and contends that it is the ganglionic system (centers and nerves) that are first disturbed. In support of his claim he would submit that Mays must overcome the position taken by Pickering, endorsed in Kirks' "Hand-Book of Physiology" (11th edition, P. Blakiston's Son & Co., 1903, Page 252) speaking of atropine and muscarine: "That these drugs act upon the nerves, and not on the muscular substance of the heart, is shown by the fact that in the hearts of early embryos, so early that nerves have not yet grown to the heart, these drugs have little or no effect," and also the universally admitted fact that ipecac, injected into a vein after section of the pneumogastric nerve will not induce emesis, first noted by M. Chouppe.

2. "That small or minimum doses enhance bodily resistance and that large or maximum doses depress or paralyze the same."

It is impossible for the writer to accept this as it reads. It should read, to meet his approval: "That small or minimum doses of stimulants enhance bodily resistance and that large or maximum doses of the same drug overstimulate and thus paralyze the same."

3. Referring to his experiments, Dr. Mays asks: "Do we not have a clear picture before us, as to how a large class of drugs in minimum doses combat disease, viz., by stimulation?"



To this the writer would reply: "We do," but when he writes, on the other hand, "Is it not equally clear how maximum doses [presumably of the same drugs] possess the property of depressing hyperactivity of the bodily tissues?" the writer replies, No. In this Dr. Mays drops into the almost universal error of not differentiating between the direct depressing action of some drugs, such as *veratrum viride*, and the paralysis of overstimulation which simulates depression when stimulants, such as alcohol and *aconite*, are given in poisonous doses.

While it is impossible to reproduce Dr. Mays' papers, reference to them will convince the unprejudiced that at the expense of much labor and deep thought he has demonstrated the conclusions as I have ventured to modify them.

Clear thought upon the point is difficult to attain until the absurdity of the phraseology employed to describe what is sometimes called the dual action of drugs, is appreciated. In a personal letter to the writer Dr. Waugh gives him to understand that he is almost persuaded he is correct in his contention, and Dr. Ellingwood in a footnote to a letter from the writer appearing in *The Therapeutist* of June, 1908, discussing the dual action of drugs says: "At first thought I was not inclined to accept the Doctor's opinion, but I have since kept my mind on the idea as he has presented it, and I believe that I can now see very good reasons why his statement is applicable to at least several of our remedies. We have claimed dual action of *bryonia*. This remedy produced the best results in small doses. We have no way of knowing that its violent irritating and depressing (?) effects in large doses are anything else than an intensification, an exaggeration of this same satisfactory influence, exercised to too great a degree."

Scudder, the Moses of eclecticism, had his face to the light forty years ago when he wrote "Specific Medication" and attempted to differentiate between *aconite* and *veratrum viride*. But he did not reach the clear sunlight because he failed to realize that when he used *aconite* for the indications he gave, and failed to get results, he should reduce

the dose because it is a stimulant. When he used *veratrum viride* for the indications he gave, and failed to get results, he should increase the dose—"dose enough"—because it is a depressant. One does not have to go far afield to exhibit the obscurity induced by the phraseology used in discussing the action of drugs.

Hare ("Practical Therapeutics") says: "Alcohol acts first as a powerful excitant and afterwards when given in a very full dose as a most active depressant [?] and paralyzant of the nervous system". . . . When alcohol is ingested, either by man or the lower animals, it stimulates the heart-muscle and increases the rapidity as well as the force of the beat. In very large toxic doses alcohol depresses [?] and finally paralyzes the heart and vasomotor system as well as the nervous system.

Thus a leading authority in regular-school therapeutics on the American continent makes alcohol a stimulant and a depressant in one breath.

Ellingwood, a leading exponent of eclectic therapeutics says as to alcohol ("Materia Medica, Therapeutics and Pharmacognosy"): "In small doses it acts as a prompt and general stimulant to every function of the body." It is a powerful irritant and produces a shock from overstimulation to which the nervous system speedily succumbs. Thus far Ellingwood is clear, but curiously enough in speaking of this paralysis of our stimulation he calls it "a direct depression [?] of the action of the heart"—dropping into the muddled language that bars all therapeutic progress. For, reading these specimen statements the student would find it difficult to decide whether alcohol is a stimulant or a depressant or both, and the same difficulty arises when one studies authorities concerning *aconite* and many other drugs.

If it be possible for a drug to be a stimulant one moment and a depressant the next, the writer will hardly be regarded as insane when he claims they can have three or four actions. Take *ipecac*, of which the U. S. Dispensatory says: "In the minute dose it is a stimulant to the stomach, exciting ap-

petite and facilitating digestion—in large doses emetic.” Hare says ipecac is used as an emetic when a fairly rapid action is required—dose 20 grains. In obstinate vomiting small doses of ipecac will act as a most successful cure, dose 1-10 grain. In true acute dysentery ipecac is the best remedy we possess,” dose 60 to 90 grains.

Hughes (homeopath) says: “It has long been known as a certain emetic.” “From Hahnemann’s time onward it has been the main remedy in the homeopathic school when vomiting had to be checked.” “It was in the treatment of this disease [dysentery] that it first won its spurs; so that it became known as the *radix anti-dysenterica*.”

Ellingwood (eclectic) says: “Powdered ipecac, in 1-6-grain doses, is a stomachic tonic, stimulating the salivary and gastric secretions.” “For its full emetic influence ipecac is probably the most satisfactory of the emetics.” “In dysentery it is of much service.”

Ringer (old and homeopathic school hybrid) says: “Few remedies are so efficacious as *ipecacuanha* in checking certain forms of vomiting.” “It is a mild, tardy but certain emetic.” “It is well known that this drug is largely and beneficially employed in dysentery.”

All writers consulted who express themselves on the point admit that in doses large enough to produce nausea, but too small to cause emesis, ipecac will have a purgative action.

These four effects might just as well be called its quadruple action than as to give it a dual action, and all four are explainable as due to the single stimulating action of the drug upon the peristalsis of the stomach and intestines.

If the peristaltic action is below par, so that the stomach is unable to move its contents onward to the intestines, reversed peristalsis occurs and emesis is the result. The minute dose of the stimulant ipecac raises the peristalsis to the normal and vomiting ceases. To obtain this effect the dose must be extremely small lest overstimulation occur, and nothing is observed beyond the therapeutic effect.

If normal peristalsis is present and ipecac, the stimulant, is given in doses too small to produce emesis but large enough to cause nausea, the normal peristalsis is stimulated, the stomach passes its contents on to the intestines too quickly and purging is produced. If the dose of the stimulant ipecac is increased, vomiting is induced while 60- to 90-grain doses of ipecac given repeatedly paralyze peristalsis by overstimulation and tolerance of the drug by the stomach is established and rest from the purging and tenesmus of dysentery, if present, is procured.

There is nothing new, strange or uncommon about this, as will be evidenced if you examine the action of an irritant or stimulant, say nitric acid, upon flesh where it can be seen.

Take a wound with unhealthy granulations (large, flabby, dark) and apply a minute dose or extremely weak dilution; the granulations become healthy and the wound heals. When healed, apply a larger dose or stronger solution to the same or neighboring parts and hyperemia will be induced. A larger dose or stronger solution will produce violent inflammation, while the poisonous dose or full strength produces paralysis or destruction of the tissue treated.

The writer believes the foregoing argument proves that *the law, similia similibus curantur, is effective only when associated with the minute dose and when asthenic conditions are to be remedied.*

*That the law, contraria contrariis curantur, is effective only when associated with the large dose and when sthenic conditions are to be remedied.*

*That both are laws of cure but neither of them is universal. That the former demands a stimulant and the latter a depressant and that no single drug can meet both indications.*

Nearly every idea advanced herein has already been set forth by individual writers, so that no claim for originality is made beyond the arranging the ideas in the solid phalanx needed to make an impression upon the rank and file of the profession, notwithstanding the inertia of those claiming authority.

The writer is therefore rejoiced to find Waugh and Ellingwood, whose positions as leaders of therapeutic thought have been fairly won, inclined to treat his views as of more than academic interest; because he believes regulars and homeopaths who adopt his views will double their individual power to combat disease, while eclectics and alkaloidists doing so will be able to utilize both laws of cure, hitherto regarded as diametrically opposed and irreconcilable, for the extension of the usefulness of their remedies and methods of administration.

Such an outcome would amply repay the writer and is one to be hoped for most devoutly.

GEO. M. AYLSWORTH.

Collingwood, Ont.

#### SOME DIAGNOSTIC AND THERAPEUTIC "BRIEFS"

In addition to the proper local application, give calcium sulphide internally (dose enough) in erysipelas.

Albuminuria is a constant symptom in erysipelas.

Erysipelas of the navel in new-born children is nearly always fatal.

Never attend a confinement case while treating a patient with erysipelas.

It has been shown under the microscope that streptococcus erysipelatis destroys cancer-cells.

Lupus and other tumors have been seen to disappear after an attack of erysipelas.

Where it is possible to apply them adhesive straps around the area of erysipelas may prevent its spread.

Unsuitable food may cause scurvy in infants without causing indigestion.

The further the infant's food is removed in character from the natural food the more likely is its use to be followed by the development of scurvy.

The main symptoms of scurvy are: pallor, tenderness, paresis of the extremities, inflamed gums, hematuria, pain on motion, swelling of the diaphyses.

In scurvy the infant likes to lie with the thigh flexed on the abdomen, the leg on the

thigh, the foot extended and the whole leg rotated outward.

If the diaper of an infant is stained red or brown, think of scurvy.

The juice of one-half an orange every day will cure infantile scurvy.

If lactic acid is present in the stomach in sufficient concentration, it will react like free HCl to dimethylamidoazobenzol.

People run down in weight are most likely to contract tuberculosis.

Loss of weight in diabetes, in spite of a good appetite, is a bad sign.

Loss of weight in a person over middle age, without apparent cause is suspicious of arteriosclerosis.

Amyl nitrite is of special value in angina pectoris, palliating but not curing.

Sodium nitrite is decomposed by the HCl of the stomach and causes gastric irritation.

Nitroglycerin often causes headache even in small doses, especially if there is low blood pressure.

The headache of a person with high blood pressure may be relieved by nitroglycerin.

Pain in the liver from congestion may accompany long-standing asthma. It is relieved by venesection, milk diet, and perfect rest.

Girls with chlorosis have mostly deficient development of the genital organs.

If iron is to be mixed with a vegetable astringent, use calumba.

Tannic acid should never be added to solutions of alkaloids.

Gum arabic is not to be added to solutions of iron or the mineral acids.

Alcoholic solutions of camphor are incompatible with water.

Iodine and the iodides should not be given with alkaloids.

HgCl<sub>2</sub> should never be given in solution with other substances except potassium iodide.

Lead salts should always be dispensed alone in solution.

AgNO<sub>3</sub> should never be given in solution with other substances, except extract of opium or hyoscyamus.

If syrup of squill is to be given with ammonium, use the chloride and not the carbonate.

Antipyrin is incompatible with calomel and sweet spirit of niter.

Don't use pepsin and pancreatin in the same preparation.

Never go out in cold weather directly after the use of acetanilid.

Obstinate vomiting is sometimes controlled by acetanilid, one grain every one-half hour.

Inhalation of vinegar from a cloth will sometimes control vomiting.

Too much vinegar taken by a nursing mother will cause diarrhea in the infant.

Stop the use of aconitine when there is tingling of the lips and finger tips.

Never give emetics in severe aconite poisoning.

In the vomiting of pregnancy try aconitine.

In neuralgia a local application by aconitine ointment (1 to 2 percent) is often of decided benefit.

In amenorrhea, aconitine with a hot drink and hot sitz-bath is good.

For the nosebleed of sthenic persons try aconitine.

In persistent vomiting the use of small doses of brandy on cracked ice will often do good.

In acute anemia of a young girl examine the feces for blood.

Acute anemia of a married woman means tubal abortion.

If in a married woman the menses have stopped, but return later irregularly with pain, slight fever, anemia, and unconsciousness, it is caused by tubal abortion.

If by aspirating the lungs in pleurisy you get a gritty exudate, think of actinomycosis.

If you examine a child, always look at the throat and ear, even if no symptoms point to this organ.

Irregular pulse in a child, without heart disease, often means cerebral lesions.

If you cannot find a cause for the fever of a child, examine throat and ear carefully.

A child with severe and long-continued diarrhea after measles, causing a general "run down," suffers from intestinal tuberculosis.

Albuminuria in a girl, without nephritis or gonorrhea, is often due to pin-worms.

If a child begins to complain about pains in the knee and gets easily tired, examine the hips.

You know that a child gets enough to eat, if it sleeps quietly after nursing.

A child which cries continually when you touch it, may have rickets, scurvy, or leukemia.

Nursing infants and scrofulous children should be guarded against measles.

Children suffering from measles and whooping-cough should be guarded from contact with tuberculous patients.

If a child has for several days an acute fever to 104°F. it is due to pneumonia.

If a nursing child suddenly begins to suffer from indigestion, vomits, and does not increase in weight, it probably does not get enough to eat.

Constipation in a nursing child is due to starving.

Irregular pulse is normal in old people, a cerebral symptom in children, and a cardiac symptom in adults.

Every child with ear trouble should be examined for adenoids.

In typhoid fever look after the temperature, in pneumonia after the pulse.

Dyspnea after pneumonia means pleurisy.

An apoplectic stroke in a young man is usually due to syphilis.

If a hard-working laborer has obesity, it is probably due to alcohol.

Don't believe a morphine fiend till his pupils are large.

Headaches that come on at night are due to syphilis, mania, or diabetes.

Jaundice in a child is catarrhal jaundice, in a young woman gallstones, in an old woman cancer of the liver.

If an alcoholic suddenly gets a fever with cough and "stitches" in the side, and slightly yellow conjunctiva, he has pneumonia.

Impotence is mostly due to tabes, small white kidney, or diabetes.

In impotence examine the patellar reflex and the specific gravity of the urine.

An itching eruption is not syphilitic.

A disease that reaches 104°F. on the second day, is not typhoid.

In serous pleurisy sodium salicylate relieves the pain and causes diuresis and diaphoresis.

In nephritis increase of weight means increase of the severity of the disease.

A sudden severe pain during ejaculation of the semen means stricture.

Pain before and during urination, but ceasing after the act, is due to cystitis.

Pain after urination is due to bladder stone.

Abdominal tumors that can be indented and changed in position and form, are due to feces.

If in abdominal tumor the left supraclavicular gland is swollen, it is malignant.

A morphine fiend has contracted pupils and slow pulse, the alcoholic not.

In delirium tremens the tremor and mental symptoms may be removed by a dose of alcohol, in paretic dementia not.

Alcoholics are liable to get pneumonia from failure of the right side of the heart.

The diet of alcoholics should contain very little proteid.

As the first thing in delirium tremens give food by the rectum.

Ergotin is good in alcoholics for nervousness, red dose, dilated capillaries, watery eyes, sweat and edema.

A large cup of hot water every half hour cured severe cases of delirium tremens.

Ammonium chloride, half a dram in a glass of water, will enable a hopelessly drunken man to walk or transact necessary business.

Olive oil, 2 ounces, will prevent intoxication from becoming profound.

In a child with a lame leg you can see how long it has been lame by the difference of growth of the two legs.

Pregnant women should use aloin very carefully. It may produce abortion.

The cough of a child, causing dyspnea and cyanosis, and ending with a whoop is whooping cough.

GUSTAF F. HEINEN.

Blossburg, Pa.

#### SUCCESS POINTERS FROM A SENIOR

In your CLINIC for September 1908, under the heading "With Failure Comes Success" you never wrote a more practical truth than when you say on page 1154, "Not all the learning carried away from the laboratory of the modern school can compare in usefulness with that mass or erudition embodied under the term experience."

I bid farewell to my alma mater something over half a century ago, imbued with all the lofty ideas that usually beset most young men fresh from college, forgetting that the useful part of my medical education had just begun. It is at the bedside that the "starch" is taken out of the young man.

Now let me say to the boys: You can get at the medical schools all the lessons in theory you are looking for; but when you go to apply these lessons at the bedside you have just entered a new and more important school of your own making.

Common sense and judgment to discriminate are much in evidence here. Go slow. Your character as a physician depends on *results*. Be careful to know nothing you don't know. Draw deductions, make comparison, look at every side, if you have any doubt as to your diagnosis. When the case is properly diagnosed you have only to decide what is *the best remedy for that particular case*, since hardly any two pathological conditions of the same nomenclature can be treated just alike.

Avoid routine practice. Treat every case on its own merits, always being able to give a good reason for the faith that is in you. Here at the bedside you must be your own authority. It is not good ethics to say, "If I had been in the shoes of some one else." Be careful how you criticise another physician's treatment until you first see the patient, note well the indications and *know* that you can do better than he.



Don't make shot-gun prescriptions. They scatter well but generally miss the target. You should know the therapeutic action of your drugs and know the underlying cause of the diseased condition and apply the remedy to suit that particular case. Guess-work is prolific in bad results. Thought properly directed will finally overcome most difficulties; therefore, think and keep thinking and you will soon be the principal author of your own practice.

J. H. SCARBORO.

Tharpe, Tenn.

#### ATOXYL USED SUCCESSFULLY IN SYPHILIS

Here is an experience with the new remedy for syphilis that may be of interest because it seemed to be a well-marked case of a second infection.

In January, 1907, Mr. R. presented himself for inspection, stating that he had just arrived on this coast, and as he had been suffering from colds he was doubtful whether the climate would agree with him. I made a thorough physical examination, but no uranalysis or blood examination, he not being willing to bear that expense. He had two large syphilitic ulcers in each tonsil, one above the other, and the two together measured perhaps one-half inch in length by one-fourth of an inch in width. The nasal mucous membranes showed evidence of similar ulcerations, now healed, his shoulders, neck and chest were covered with the characteristic scars of secondary syphilis. There was no evidence, however, of chancre on the penis, and he denied ever having and a sore there.

I told him I thought quite likely his present condition was manifestations of syphilis and could readily be changed by proper treatment. To my surprise he said he would not take any more medicine as he had already taken more than he wished he had, but if I would prescribe for his cold, that would be satisfactory. I gave him the CLINIC-brood clean-up-and-clear-out whirl and then antisyphilitic granules, telling him to use the latter till the ulcers in his throat

healed, feeling I had done the best I could for him, in view of his refusal to let me treat him intelligently.

The case had entirely passed from my mind, when in March of this year he again came to me. Thus a little over a year had elapsed.

This time he had a beautiful chancre on the dorsum of his penis just back of the corona. It measured one-fourth of an inch in length by one-eighth of an inch wide and was fully a sixteenth deep. He said it had been two weeks growing, and finding ordinary remedies would not help him he had again come to me.

This time I told him I would not treat him unless he would stay with me at least six weeks, and then he would need to take medicine a long time. To this he agreed. So I gave him the following combination of granules in capsules, each containing two granules of echinacea, gr. 1-2, one of podophyllin, gr. 1-8, two of phytolaccin, gr. 1-6, directing him to take one capsule every three hours.

Altogether, in six weeks, five drams of atoxyl was injected.

No febrile conditions manifested themselves; no buboes; no glandular enlargement; in fact no secondary symptoms whatsoever, and the man seemed as sound as a bullet in every way; the only thing unusual that I noticed in the case was the extremely slow healing of the chancre, it being full six weeks before the last signs of ulceration had gone. I was obliged to burn it with nitric acid five times. As a dusting for the sore I used bismuth, 7 parts to boric acid, 1 part. I purposely avoided giving mercury, to observe the effect of the new remedy.

The next case I have I shall omit all other remedies and try atoxyl alone, and I should be glad to hear from some of the brethren through THE CLINIC, if similar experiments are tried.

F. G. DE STONE.

San Francisco, Cal.

[Atoxyl, as probably most of our readers know, is an arsenic preparation—arsenic acid anilide.—ED.]



## CLINICAL · MEDICINE POST-GRADUATE SCHOOL *of* THERAPEUTICS

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### PART I.—LESSON ELEVEN

#### ELIMINATION (Continued)

##### DIURETICS (Continued)

**Diuretin** is a most valuable diuretic. It is not irritating to the kidneys and rarely causes disagreeable symptoms. I quote from Butler's "Textbook of Materia Medica" as follows: "Diuretin is somewhat rapidly absorbed, being eliminated mainly by the kidneys, the process greatly stimulating the renal epithelium. The rise in blood-pressure is helpful, but the chief action has been shown to be on the epithelium. Both fluid and solid parts are increased. The chief increase in solids takes place in the chlorides. The amount of nitrogenous matter eliminated is also increased.

"In cases where diuretin is indicated the amount of urine is increased from three- to sixfold in twenty-four hours under its administration, the diuretic action of the drug gradually reaching its maximum between the second and third day. In the case of healthy persons diuretin has little influence upon the amount of urine excreted.

"It is a drug which is used exclusively as a diuretic in cases of dropsy, ascites, pleuritic effusion, etc. It is worthy of a thorough trial for the removal of dropsical fluids, irrespective of the cause. The drug is best suited to cases in which there is

general dropsical effusion. It is the best medicinal remedy for removing dropsical fluid due to valvular disease of the heart after digitalis and pure cardiac tonics have failed. Diuretin has oftentimes a beneficial effect in other circulatory diseases with dropsy, as myocarditis, pericarditis, aneurysm, arteriosclerosis. Its action is here more uncertain than in valvular disease. In the dropsy of nephritis it can be used without danger of irritating the kidney, the effects in acute nephritis being more certain than in chronic nephritis. Where the renal epithelium has undergone too extensive degeneration the drug may fail to act. In the dropsy of portal obstruction, and especially cirrhosis of the liver, it usually fails to give as good results.

"It may be given in capsules or dissolved in aromatic water or in milk. It should never be dispensed in powders. It is preferable to give the drug in solution; and it can be easily associated with digitalis and similar remedies, but when used with the cardiac remedies the doses of diuretin should be smaller. It has a very disagreeable taste and cannot well be disguised.

"When giving this drug in cases of marked ascites or for the removal of large

quantities of dropsical fluid, the first doses should be small and gradually increased to the maximum amount or until the desired effect be produced, lest by a too sudden removal of the fluid alarming collapse ensue.

"As acids are incompatible with the drug, diuretin should not be given immediately after meals, but its administration postponed for about three hours to avoid unpleasant symptoms arising from the action of the gastric juice upon the remedy.

"The maximum daily amount which can be safely administered is 150 grains. The average daily amount is 45 to 105 grains, given in divided doses of about 15 grains each. If diuresis is not increased in six days, perhaps within three days, the use of the drug should be suspended and recourse to other treatment adopted. If there is marked gastric irritation the drug may possibly aggravate the symptoms, otherwise there are no special contraindications to the use of diuretin."

**Piperazin and Urotropin.**—These two agents have gained considerable reputation as diuretics. *Piperazin* has the property of dissolving uric acid, with which it forms a neutral and exceedingly soluble salt, piperazin urate, said to be seven times more soluble in water than lithium urate. Solutions of piperazin may be injected into the bladder in order to dissolve vesical calculi. They seem to have a slight action. The drug is also of service in chronic cystitis.

*Urotropin* is a powerful germicide in the urine. It is eliminated in that fluid and broken down into formaldehyde. It is especially valuable in cystitis, in gonorrhea, and in all conditions in which it is desired to avoid urinary infection.

Piperazin may be given in doses of from 5 to 15 grains. Urotropin is given in doses of from 4 to 8 grains, 4 grains being the average dose as recommended in the U. S. P.

**Cantharis** has a powerful action upon the genitourinary tract, and because of some influence upon the kidneys it may be classed as one of the diuretics. Brunton claims that in doses of 1 minim of the tincture cantharis checks hematuria. In

large doses it increases the disease. In acute nephritis, when the acute symptoms have passed and a little albumin and blood are still to be found in the urine, it is very useful in doses of 1 to 3 minims, every three hours. In cystitis, where there is inability to retain the urine, and in ordinary incontinence of urine it is useful, though atropine is generally better.

Hare says: "In late stages of nephritis with relaxed, torpid kidneys, or where albuminuria comes after slight exertion, tincture of cantharides in 1-minim doses, thrice a day, is of great service; also in chronic alcoholic nephritis, irritability of the bladder in women and children with depression, very chronic gleet and prostaticorrhea; internally it is also of some benefit in dropsy, especially following scarlatina."

Ringer says: "Women, especially middle-aged women, who suffer from frequent desire to pass water or inability to hold it long, sometimes only in the day on moving about. Micturition causes no pain, neither is there any straining, and the urine is natural. Other women cannot help passing a little urine on straining, sneezing or coughing. Sometimes women are troubled with both sets of symptoms due to weakness of the sphincter of the bladder. One or 2 drops of tincture of cantharides three or four times a day will in many cases afford great relief, and sometimes cure with astonishing rapidity, even when the symptoms have lasted months or years. Tincture of cantharides is useful in the incontinence of urine of the aged, even when due to paralysis, and sometimes in that of children. With children, however, it is inferior to belladonna. Unfortunately, each remedy fails in some, although few, cases."

*Cantharidin* must be looked upon as a highly specialized weapon, delicate and keen-edged, capable of doing much good in a limited group of affections, but dangerous in unskilled hands. *It is strictly a drug for dosimetric administration*, and should never be given in large doses, but in minimum quantities rapidly repeated, until the beginning of burning in the stom-

ach or urethra shows that the physiological limit has been reached. For use by the dosimetric method the adult dose of cantharidin, the active principle of cantharides, may be placed at 1-6000 of a grain repeated every hour until slight burning is felt in the stomach or urethra.

**Spirit of Nitrous Ether** may be used either as a diaphoretic or diuretic, the effects depending upon the manner in which it is administered. For its diuretic action it should be given in ice-water and the patient be kept cool. To produce diaphoresis its administration should be accompanied by warm drinks and the patient should be well covered. It is frequently given as a diuretic in Bright's disease, congestion of the kidneys, and painful affections of the urinary apparatus.

**Colchicum** has some effect upon the kidneys. Small doses increase the urinary fluid, the urea and uric acid excreted, but larger ones lessen or stop the fluid secretions. In America gout is represented by uric acidemia, and in the multifarious manifestations of this diathesis colchicine is the first of remedies.

It is not necessary to push the remedy to production of unpleasant effects. Let the granules be taken until slight looseness of the bowels is evident, and then suspend the medication until the next day. The daily dose thus ascertained may be divided into three and given before meals in the usual way. Colchicine is more rapidly absorbed than the galenic preparations of colchicum, but the slowness of its action renders this agent ill fitted for rapid, cumulative administration; so that the doses should be at least two hours apart.

Colchicine is a valuable remedy for ascites from hepatic obstruction, and is also useful in gonorrhea, chordee, hypochondria with renal insufficiency, ocular inflammations and local manifestations of gout. Colchicine may be given in doses of 1-134 grain four times a day, but this will probably be too much for patients with a delicate stomach.

**Alkalis.**—The members of this group are all endowed with very high diffusion-power, the potassium in a greater degree than

the sodium salts. All are very soluble in water. With the exception of the acetates and citrates of potassium and of sodium they have an alkaline reaction, weak in some, as in the biborate of sodium, but very marked in others, as in caustic potassa or soda.

It is generally held that all these substances are diuretic, and under certain circumstances they may possibly become so. Acetate of potassium and acetate of sodium enjoy the highest repute in this respect, though some careful observations have been made with these substances on persons in health, which have lead to unexpected results. Thus it was found by Böcker that so far from acting as a powerful diuretic in health, the potassium acetate diminished the water, the urea the extractives, and in a remarkable manner the earthy salts.

Some valuable observations concerning the action of potassium citrate and potassium acetate, as diuretics in health, have been made by Dr. Nunneley on himself. This experimenter took daily, for twelve days, from 3 to 5 drams of potassium citrate. On an average the daily excretion of water was increased by 2 1-2 ounces, but the urea was lessened by 84 grains, and the solids by 60 grains. The potassium acetate, in daily doses of from 2 1-2 to 3 1-2 drams, exerted a similar influence in a somewhat less degree.

But should we expect medicines to act as diuretics or eliminators in healthy persons? In their blood there should be but little urea or uric acid to be eliminated, and we must be careful how far we allow physiological or pharmacological experiments on healthy human beings or animals to guide us as to the action of remedies in disease. That such caution is necessary regarding the alkaline diuretics is shown by the experiments of Ranke who, after giving potassium acetate, noticed a very considerable increase in the quantity of urine voided soon after, showing that this salt will sometimes act as a diuretic of water.

It is not supposed that any members of this group act on organs remote from the kidneys. They may possibly promote oxidation in the blood and so reduce effete

products to urea, in which form they are separated by the kidneys.

Some of the alkalis are considered to be febrifuge, as the citrates and acetates. If so, they would act as eliminators of water, as, on the decline of fever, an increase takes place of the urinary water previously held back in the system during the febrile state, and often accompanied by a simultaneous increase in the solids of the urine. If, therefore, these substances will check fever, this increase of water and solids must in some measure be due to their action.

These alkalis are generally reputed to act as diuretics when the kidneys are diseased, the citrates and acetates being given in acute and chronic Bright's disease. Potassium acetate is used as a diuretic, more especially in cases of chronic kidney disease, where it is frequently combined with acetate of iron.

The acetates of the other alkalis are very sparingly used. Potassium tartrate often is used in place of the acetate as a diuretic. The acid tartrate of potassium has a double action: in small quantities it is absorbed and acts as a diuretic and as an indirect antacid, rendering the urine alkaline; but in large doses it has not this effect, and then acts as a hydragog cathartic.

By making the urine alkaline with the citrates or acetates, it is enabled to dissolve the organic but diseased matters which block up the uriniferous tubes in Bright's disease and hinder the secretion of the kidneys. While I have stated that the members of this group render the urine less acid or even alkaline, it is nevertheless a fact that the amount of acid excreted with the urine is actually increased, but being neutralized by the alkalis, it gives no acid reaction.

The citrates and bicarbonates are employed to render the urine alkaline, when the urinary organs are irritated or inflamed, as in cystitis and gonorrhea. If in cystitis the urine, before it is passed, is already alkaline from decomposition of the urea, alkalis must not be given; for they would increase the alkalinity and, as alkaline decomposes much more readily than acid urine, they would still further promote the decomposi-

tion of urea and the formation of ammonium carbonate.

When excess of uric acid occurs in the urine, it should be kept, for a time, alkaline; and it has been shown that uric-acid calculi may probably be dissolved in the bladder if the urine is maintained alkaline for some weeks. This treatment probably is useful in renal calculus, which is generally composed of uric acid only. It is reasonable to expect that the alkaline urine would in time reduce the calculus sufficiently to pass down the ureter. We have seen patients complaining of much pain in the back, passing bloody urine, containing a large quantity of uric acid crystals, and a little pus, who have been greatly helped, and in some instances apparently cured, with large doses of potassium citrate.

The sodium salts are less irritating to the gastrointestinal tract. They are neither absorbed nor eliminated so rapidly, and are consequently less active as diuretics. They are not nearly so powerful solvents of uric acid, and are therefore inferior to the potassium salts in gout. Indeed, the nodules, known as "chalk stones," frequently found upon the joints of gouty patients are composed of urate of sodium.

In conditions of acidosis, however, where the degree of urinary acidity is below 30 or above 45, sodium bicarbonate with free elimination by the bowels by the aid of a saline laxative will prove very efficacious.

As a solvent of uric acid lithium is the most powerful of all the alkalis, the urates, formed under the administration, of the carbonate or citrate, being extremely soluble, rendering the alkaline salts of lithium superior to the other alkalis in gout and in the uric-acid diathesis.

One of the best physiological uric-acid solvents is calcium carbonate. It is a true uric-acid solvent, stimulating every excreting organ, and is applicable to every manifestation of the uric-acid diathesis.

Calcium salts are less rapidly absorbed and excreted, uncombined, than the foregoing alkalis, and less active in increasing the alkalinity of the urine.



Magnesium salts are not so readily absorbed, nor so rapidly excreted, as the salts of potassium, while increasing the amount of water and solids excreted and acting on solvents of uric acid.

The salts of ammonium are quickly absorbed and undergo oxidation in the body, augmenting the amount of uric acid and urea in the urine, thereby increasing its acidity to some extent.

The acetates, bitrates and citrates of potassium and of sodium are efficient diuretics, the first-named salts being superior. In lithemia these salts serve a valuable purpose by rendering the urine persistently alkaline, retarding, as has been said, the formation of uric acid calculi and even dissolving small calculi of this variety. In chronic Bright's disease the acetates and citrates frequently are indicated for their diuretic action, while potassium bitrate in full doses is one of the most effective cathartics and diuretics in acute nephritis and cardiac dropsy.

As above stated, the lithium preparations are usually preferred to the other alkalis in the gouty uric acid diathesis.

The alkalis should always be administered largely diluted. The time of administration—whether before or after meals—will depend upon the effect desired. It must be remembered that alkalis are contraindicated in the phosphatic diathesis, since there is danger of the formation of phosphatic calculi. The calcium preparations should not be given to patients suffering from oxaluria.

#### DIAPHORETICS

Diaphoretics, or sudorifics, are medicines which promote sweating. The action of the cutaneous exhalants may be increased by various means. The mere introduction of a large quantity of fluid into the system will produce sweating if the body be kept warm. Exercise and an elevated temperature, by determining a flow of blood to the cutaneous vessels, produce the same result. Nauseants occasion diaphoresis by relaxing the orifices of the cutaneous vessels; stimulants do the same by exciting them to increased secretion.

**Diaphoretics are Mainly Used as Eliminatives**, but sometimes they are used for the purpose of reducing the temperature when this is above the normal. In fevers, for example, the skin is hot and dry, a condition which is invariably accompanied by thirst, and the sensory nerves are irritated by the bed-clothes. There is consequently great restlessness, which aggravates the disease, by preventing sleep and raising the temperature. If perspiration be induced, thirst will be allayed and the temperature lowered. So also in diabetes, when the skin is dry, the patient's constant thirst will be lessened if the skin be kept moist.

In using diaphoretics as eliminatives it must be remembered that the skin is an eliminative organ only to a small extent, and acts as such only when the natural eliminative organs fail. Whenever, therefore, the skin is to be utilized for this purpose, it should always first be prepared for this action; and one of the first indications is to remove any existing tension. For when the skin has been dry for any length of time the different epithelial layers are brought into close contact with each other, the orifices of the glands are closed, and thus the discharge of the secretions is prevented. This condition exists in fevers, and generally in dropsy. In the latter disease the dry skin is due to the subcutaneous effusion acting as a mechanical obstacle to the capillary circulation and thus arresting the secretion of the sebaceous glands by lessening their blood supply. An emulsion of oil, therefore, is a valuable adjuvant to the diaphoretics when these conditions exist, as it opens the glands and separates the epithelial layers of the skin. After the patient has been oiled, as another adjuvant, he may rest in a hot-pack.

**Diaphoresis and Catharsis.**—Diaphoretics will not operate when other eliminative organs are in abnormal activity, and for this reason diaphoresis should not be attempted while the bowels are under the influence of cathartics. In our opinion diaphoretics should be employed more often than they are for the treatment of febrile conditions. The liquor of ammonium acetate is a famous remedy in the pyrexia of children and of such

febrile conditions in adults. It is a good remedy for the dispersement of accumulated heat, dilating the cutaneous vesels and increasing the action of the sudoriparous glands, and so encouraging heat-loss. It should be given to adults in half-ounce doses every four hours, with spirit of chloroform and compound spirit of ether. This remedy should, of course, not be used to replace aconitine (which is our best single remedy for simple febrile states) but as an aid to the more powerful drug, or when the latter is contraindicated.

A very good prescription is: wine of antimony, 20 minims; tincture of hyoscyamus, 25 minims; liquor of ammonium acetate, 1 ounce. This to be given at one dose for an adult, one-half of this amount some times may suffice. The citrate, the nitrate, the acetate, and the bitartrate of potassium have all been used in the treatment of pyretic affections, as have also other saline compounds. All forms of potassium act upon the skin as well as the kidneys, while the effervescent citrate of potassium acts powerfully as a diaphoretic on some persons in summer.

#### **Diaphoretics Used for Febrile States.**

—In ordinary colds, with a dry, burning skin, it often is necessary to give nauseant drugs, including diaphoretics, in full doses, to produce a sufficient impression upon the skin. However, such doses may derange the stomach considerably and not rarely interfere with the administration of other remedies. In order to avoid this, the idea of acting upon the skin directly by warm baths, and so exciting it to renewed action, has obtained extensively. The ordinary warm bath of children and infants, who can readily be put into a bath or even a bowl of warm water, is very convenient, but for adults such baths are not available in the homes of the poor. For their needs the following simple substitute is very serviceable.

Have ready six or eight soda-water bottles, as many woolen stockings and some hot water. After each bottle is filled with hot water and tightly corked, a stocking is wrung out of hot water, so as to be moist, but not dripping, and quickly drawn over the bottle.

These bottles, so encased, are then placed around and against the feverish patient. So packed about the sides and between the legs of the patient, the bottles give off steam enough to render the surrounding air damp. In from twenty to thirty minutes free perspiration is in full swing, and thirty-five minutes usually is enough for one bath, at least with most persons. If the patient is then wrapped in a blanket and covered up for thirty or forty minutes more, the diaphoresis is kept up. When he may be unwrapped and left in bed, with his skin moist and bedewed with perspiration. If the bed has become unduly wet, the patient may be removed into another, previously well aired and warmed. If only one bed is available, the patient must be enclosed, together with his bottles, in a large blanket, which after the sweat can be drawn from under him.

Combined with potassium iodide and ammonium acetate, this bath forms a capital treatment for the first stage of a simple pyrexia, being at once efficient and safe. It is obvious that our remedial measures for the reduction of temperature must take the direction of attempting to restore the lost balance between heat production and heat loss. We have just seen that increased action of the skin increases or exercises a most distinctive effect upon heat loss. Consequently agents termed diaphoretics have been rationally and logically resorted to in the treatment of pyrexia.

Experience, however, has taught just what our scientific knowledge claims, namely, that the diaphoretics we select for the purpose of lowering the temperature are those exercising a depressant action. That is, they not only act upon the cutaneous vessels but they at the same time keep up the circulation. They are the nauseant, or depressant, diaphoretics, of which antimony and ipecac are the best known.

Rassori, in 1800, introduced the plan of treating fevers and inflammations by full doses of tartar emetic. The plan was very successful, but came into disuse, and has now for some years been out of general favor. Nevertheless, it was an efficient plan, especially in small and often-repeated doses so

as to produce a steady effect, instead of the operations of distinct depression and after-rise which follow one decisive large dose, or the repetition of powerful doses at long intervals.

This plan of Rassori led to another step by Fleming of Birmingham who, in 1844, brought forward the action of aconite.

## PHYSIOTHERAPY

### ELECTROTHERAPY

Among the physiotherapeutic methods in vogue today, electrotherapy seems to occupy a position in the very foreground. We live in an age of electricity. From the mere plaything of hardly more than fifty years ago that subtle form of physical energy has developed and grown into an agent of still-increasing power and usefulness in almost every line of human activity. It has invaded the domain of medical practice and has unfolded to the investigating eye and mind of the physician new and wonderful possibilities in the interests of human health. The announcement of the discovery of a hitherto unsuspected form of energy emanating from vacuum-tubes of special construction (x-ray or Roentgen-ray) a few years ago gave a tremendous impetus to the study of electricity in its relation to medicine, until we finally have reached a point where electricity is a necessary and indispensable part of the modern physician's work. Modern electrotherapy includes the uses of various forms of electrical energy in the study, treatment and cure of disease. Much has already been accomplished in the elaboration of this subject, and yet the promises of the future seem even greater than the achievements of the recent past.

Sir Oliver Lodge in his excellent book entitled "Modern Views of Electricity" recognizes four distinct forms, or varieties, of electrical energy, to-wit:

1. **Static Electricity**, or electricity at rest. This form of electricity is found, for instance, in gas-fixtures under certain favorable atmospheric conditions when it is possible to extract it in the form of a spark by pointing a finger close to the fixture. The hair of some people is charged with electric-

ity of this kind. The crackling noise which is distinctly heard when such a person combs his or her hair is due to the liberation, or discharge, of electrical force. The word "static" is of Greek origin and means "standing still" (electricity at rest.)

2. **Current Electricity**, or electricity in motion. The word "current" is of Latin origin and means "running," "moving" or "flowing." It refers to the supposed motion of the electrical force through or along a conductor. The old physicists, including our own Benjamin Franklin, compared the "motion" of electricity to the motion or flow of water and applied to it the term "current." It refers to the kind of electricity that is carried by wires which are, therefore, known as conductors. A conductor is any substance capable of carrying or conducting electricity. There are good conductors, like all metallic substances; moderately good conductors, like the tissues of the human body; and, lastly, poor conductors, like silk, dry air and glass. Substances that do not conduct electricity are known as nonconductors or insulators.

3. **Electromagnetism** is a peculiar form of electrical energy and is sometimes called electricity in rotation. The ancients were familiar with the fact that amber, when rubbed, became possessed of a peculiar property of attracting other bodies. From the Greek word *electron*, meaning amber, the word electricity is derived. It originally meant "a force possessed by amber." Dr. Gilbert, a physician who lived about 200 years ago, showed that many other substances, in fact nearly all substances, if rubbed in a certain manner, possessed this force.

We know now that if two substances are rubbed together both are electrified, but not in the same manner. One becomes positively electrified while the other is negatively electrified. Substances that carry similar charges (i. e., both positive or both negative) repel each other while opposite charges attract. The old Grecians called this peculiar manifestation "magnetism," from the name of the Greek province Magnesia, whose iron ores were found to possess this peculiar property. Electricity and magnetism bear a close

relation to each other, in fact they are only different manifestations of one and the same force. The mutual close relation of the two kinds of manifestation are well illustrated by the familiar little induction-coil of every faradic battery of which we shall speak later on. In this little coil the electrical current produces magnetism in the iron core.

**4. Electroradiation** is the phenomenon which explains the various forms of electrical conduction or transmission without conductors other than the space intervening between the generator and the receiver of the energy. Professor Hertz was the first physicist who studied these invisible, conductorless, wireless forms of electrical manifestation. They are named in his honor Hertzian waves. The x-rays belong under this head and also the radiations from certain substances like radium that constantly emit energy and are, therefore, said to be radioactive. The subject of radioactivity is of the greatest importance nowadays.

Just as radium possesses and constantly emits certain forms of energy, it is thought that the human body, in its nerve-cells, possess a certain kind of radiating energy that is constantly given forth and constitutes what, in its visible manifestations, we recognize as the life of the body. Exhaustion of radioactivity means death. It is plain that this life-energy, brain- or nerve-force is closely related to electricity in some form or other. Many of the effects of electricity on the human body can be explained this way.

Sir Oliver Lodge did not add a fifth variety of electrical energy to his classification but something which really ought to be included, namely:

**Inductive Electricity.**—It is not a different kind of electrical energy, but it differs from the four varieties mentioned in the manner of its production and is dependent upon the existence of an electrical charge or current in any conductor. The latter is surrounded by a sphere of influence whose diameter depends on the character of the charge or current carried by the conductor. This sphere of influence is called the magnetic, or electromagnetic, field of the conductor.

If a substance capable of carrying electrical energy is brought near a conductor actually carrying electricity, without however touching this conductor but close enough to invade its electromagnetic field, the substance will receive an electrical charge. There is no contact, no direct conduction. We call this manner of generating electricity, *induction*, and the energy produced, *induced electricity*.

In attempting to explain the phenomenon of induction Benjamin Franklin took it for granted that all bodies in nature contained electrical energy. If there was an excess of the latter, he considered the excessively charged bodies to be positively electrified. By bringing an insufficiently (or negatively) charged body near the positively electrified body, the latter would incite an additional charge in the former and the induced charge would be the result.

Symmer, another physicist, assumed that the electrical force is present in all substances and reacts upon irritation, e. g., friction, by breaking up into two forces of opposite character, positive and negative. If another substance is brought near a conductor, the predominant element, positive or negative, in the latter will attract the opposite element in the substance brought near the conductor. Thus an electrical manifestation of opposite character is incited, i. e., an induced charge or current opposite in character to the charge or current in the conductor. Thus the substance acted upon becomes a conductor of an induced charge or current. It is known as the secondary conductor while the original conductor is the primary. The charge or current carried by a primary conductor is known as a primary charge or current, while an induced charge or current is always called a secondary charge or current.

Two familiar examples of induction will help to make the subject clear. If the inside of a Leyden jar is charged positively, the outside will receive a negative charge by induction, and *vice versa*. The outer, or secondary, winding of a faradic coil receives its energy from the inner, or primary, winding by induction. Both examples will be fully

discussed later on. For the sake of completeness let me add that the positive element often is called the *anode* while the negative is known as the *cathode*.

**Definition and Explanation** of a few elementary electrical terms will serve to elucidate some of the fundamental principles upon which the science of electricity rests.

The *electroscope* is a simple device for the purpose of determining whether a body is electrified. In its simplest form it consists of two strips of gold-leaf suspended together from the same wire. The whole arrangement is protected by a glass jar. When the instrument is brought near an electrified body the two strips of gold-leaf become charged and they violently diverge. It indicates simply that electrification has taken place, but it does not suggest either the kind of electrical energy present, its amount or its potential force. There are ways and means of determining the quantity and the force of electrical energy. However, before discussing them it will be necessary to get a clear idea of electrical quantity and force.

We have stated previously that electricity is in reality a dual form of energy possessing a negative and a positive character. It is lying dormant throughout all creation—wherever there is matter. The two (electrical) elements, positive and negative, are in a condition of perfect mutual equipoise. When, under given favorable conditions, this perfect equipoise is disturbed and the hitherto dormant force becomes an active electrical force we express this phenomenon by saying that the potential of one element has become different from the potential of the other.

The active flow or tendency is from the higher potential to the lower one. This is the direction of the current. We call the element possessing the higher potential the *positive pole*. The element possessing the lower potential is the negative pole. Thus the electrical energy, or current, tends *from the positive to the negative element*. That which disturbs dormant electricity and changes it into active electrification is called the *electromotive force*. The relative intensity of this force is expressed by the

*voltage*. By the voltage of a current, therefore, we mean the degree of electromotive force which disturbed the perfect potential equipoise of dormant electricity.

#### COMMENTS ON THE LESSON

We always appreciate every friendly encouraging letter, nowhere more than in connection with this postgraduate course, which in spite of its shortcomings is holding its old friends and constantly making new ones. One of the nicest letters we have received comes from Dr. Wm. C. Post of Maquoketa, Ia., who writes: "To me this course grows more fascinating with every lesson. Therapeutics has been my hobby ever since I started the study of medicine, and it grows more absorbing every year. The amount of good which my study and research over the lessons has done is so apparent that my friends notice it, and say that I must have been doing a great amount of work."

We hope that many other readers of CLINICAL MEDICINE are having the same experience—finding the course just as helpful to them, just as stimulating to thought and effort as has Dr. Post.

**Treatment of Ascites.**—Dr. John Stuart of Monon, Indiana, says: "I seek first to determine upon what the ascites depends. I then try to build up the strength of the patient by generous diet if the stomach will take it and digestion is not seriously impaired. A good tonic is also given and if need be a stimulant. Then for the ascites I give strophanthus and apocynum combined. [Why not strophanthin and apocynin?—ED.] This combination has proven very satisfactory in my practice. If the ascites depends upon general dropsy connected with renal or heart disease the infusion of digitalis is of advantage. This may be combined with potassium acetate and spirit of nitrous ether. Sometimes I give elaterium so as to secure a free flow from the bowels. At other times I give magnesium sulphate in doses just large enough to get their diuretic without their cathartic action. When it becomes necessary to tap I insert the trocar in the middle line, half way between the um-



bilicus and the pubes. I try to keep the diet a dry one as far as possible. I have combined apocynum and fluid extract of juniper berries, but I have not had satisfactory results with them."

We have found apocynin the most valuable single remedy; but the dry diet, thorough purgation with calomel and salines, with such remedies as scillitin (not used enough), digitalin, sparteine and caffeine are also frequently indicated. Recent researches have shown that a salt-free diet facilitates the removal of dropsical fluids. Therefore omit sodium chloride from food as far as possible.

**Diuretics Increasing Secretion of Solid.**—"Urea," says Dr. Stuart, "is the most important constituent of urine, and is the chief nitrogenous end-product of the metamorphosis of proteins in the body, and carries off by far the largest quantity of all nitrogen ingested with the food. For the elimination of waste-products from the blood I use the potassium salts, especially the nitrate and bitartrate, also juniper, etc.; caffeine may be placed in this same class.

"Hydragog diuretics increase the water of the urine largely. This they accomplish in various ways: by increasing the force of the heart, by contracting the efferent vessels so as to raise the pressure in the glomeruli, by dilating the afferent vessels. They include digitalis, caffeine, strophanthus, convallaria, spirit of nitrous ether, scilla, etc."

**Action and Uses of Sparteine.**—This is discussed by Dr. John Stuart, Monon, Indiana, as follows: "Formula  $C_{15}H_{26}N_2$ . Obtained from the distillation of a concentrated infusion of the tops of the cytiscus scoparium or from the mother liquor after precipitating scoparin. It is a colorless liquid of an oily consistency, soluble in alcohol, ether and chloroform. There are no official preparations, but a decoction may be prepared in the proportion of one ounce to the pint, and administered in doses of one ounce every three hours till its diuretic effect is produced. Sparteine sulphate is a white powder, neutral, odorless, bitter, deliquescent, soluble in water and alcohol. Dose, from gr. 1-10 to gr. 1-2.

**"Physiological Action.**—This agent has a considerable influence upon the nerve-centers, hence upon the heart. It quickens the pulse-rate, increases arterial tension. It stimulates the kidneys to a marked degree and produces mild diaphoresis. In overdose it produces muscular trembling, incoordination, emesis, catharsis, and finally paralysis of the respiratory and motor-centers. The heart is stopped in systole.

**"Therapy.**—Sparteine is the remedy for weak heart with muscular feebleness. It is useful in palpitation from heart-strain and exhaustion. It is said to be useful in Graves' disease. It acts quickly and its effects last for a considerable time. It is not, however, to be depended upon in all cases."

**Turpentine.**—Dr. R. H. Gary, Murrefreesboro, N. C., says: "Oil of turpentine is a volatile oil distilled from turpentine, a concrete oleoresin obtained from *pinus palustris* and other species of *pinus*. The official preparations are linimentum terebinthinæ, for external use (35 percent with resin cerate); oleum terebinthinæ rectificatum—(a rectified or redistilled oil of turpentine); dose 5 to 15 minims. It may be administered on lumps of cut sugar in small doses and in capsules and in emulsion. Externally it may be applied mixed with some bland oil or with hot water in the form of stupes, and in its unmixed state according to effects desired.

**"Therapeutic Uses.**—Externally and locally as a counterirritant in lumbago, myalgia, neuralgia, rheumatism, bronchitis, pneumonia, pleurisy and various other conditions. It is an excellent application to freshly cut and lacerated wounds. It is almost a specific in Fourth of July lacerated wounds with toy pistols, in preventing lock-jaw. It is sometimes used externally in skin diseases as tinea tonsurans, and mixed with a bland oil in alopecia areata and psoriasis. It can be applied to bone caries, etc. It is an efficient means of allaying cough and irritation in laryngitis, bronchitis and other throat and lung diseases, by inhalation. It may be applied directly to the throat in catarrhal and other sore-throats and diphtheria. Internally, in proper doses, it acts as a stimu-

lant, antiseptic, diuretic, hemostatic, anthelmintic and purgative. It can therefore be given in gastric and intestinal flatulence typhoid fever, tympanites, intestinal hemorrhage, chronic intestinal catarrh, some forms of hematuria, menorrhagia, purpura hemorrhagica, pneumonia, bronchitis, puerperal fever, bronchorrhea, emphysema and a number of other diseased conditions. It may also be used by enema."

**Comparison of the Physiologic Action of Strophanthin and Scillitin with Digitalin.**—This question is beautifully answered by Dr. Arthur H. De Mendoza, Chicago, as shown in the accompanying table:

STROPHANTHIN	SCILLITIN	DIGITALIN
<p>Is rapidly absorbed and more readily eliminated than digitalin, possessing no cumulative action. It is excreted by the kidneys. Strophanthin has no influence upon the caliber of the renal vessels, as digitalin has. Uremia and dyspnea of nephritis are relieved by this drug. Dose is gr. 1-500 to 1-134. The tonic effect is not as enduring as that of digitalin. As a rule it does not disturb the stomach, or digestion.</p>	<p>This is quickly diffused through the blood, being eliminated by the kidneys and bronchial mucous membrane. It is a renal stimulant. In large doses it becomes an irritant to the kidneys, producing strangury, hematuria and sometimes suppression of urine. Good in dropsy and atonic conditions with normal kidneys. Scillitin is not cumulative in action. In combination is more effective than either of the others alone. Scillitin in large doses is an emetic. The ordinary dose should be given in increasing manner; if the expected action ceases and this should continue till some untoward action supervenes, then suspend the drug. Scillitin is seldom given alone, when needed for diuretic purpose, because of its irritating action.</p>	<p>Digitalin is diuretic through modifying the renal vessels or circulation, not by stimulating the excretory apparatus. This drug stimulates the muscular walls of the heart, and its effect is seen within four to five hours. It may be administered for a long time without losing its power for good (not in nephritis). Not suited for subcutaneous injection because of the frequency of injection. The dose is gr. 1-64 to 1-52. Maximum dose per day, gr. 1-3. Digitalin is specially dangerous in cases of fetal pulse.</p>

**Experience with Diuretics.**—Dr. T. R. Weed, Cheshire, Ohio, says: "A lady came to me whom I knew eight years ago as a fleshy, hearty woman, weighing 180 pounds or more, now reduced to 100 pounds. Her heart was weak, pulse soft and there was atony and dropsical effusion of the lower extremities until the calves of her legs hung over her shoe tops. The secretion of the kidneys was scanty and high-colored, bowels were constipated, appetite was *nil*. I suspected the use of opium, but as the condition was beyond my control and probably past hers I refrained from mentioning it. I decided to clean her up, and so gave calomel, podophyllin and the bile salts followed by salines and intestinal antiseptics; and to keep up the vital energies I gave the arsenates of iron, quinine and strychnine with nuclein, putting her on a dry diet in the meantime. I gave,

as a diuretic, apocynin every two hours to result, varying the dosage as circumstances demanded. After much trouble and close watchfulness I succeeded in bringing her into line with dropsy removed and secretions normal. Weight increased 16 pounds in three months. So much for apocynin. In cardiac dropsy I have given digitalin, also digitalin and scillitin, sometimes sparteine, cactin and convallamarin."

**Treatment for Acute Cystitis and Acute Nephritis.**—Dr. William V. Secker, Evanston, Illinois, says that his treatment for acute cystitis "would be arbutin, salol, as antiseptic, and hyoscyamine, gr. 1-250, or codeine, gr. 1-6, for pain. Injections of boric

acid, 10 grains to the ounce of water, or silver nitrate, 1 grain to 8 ounces distilled water. If urine is very acid alkalis would be used, if alkaline ammonium benzoate is given, 2 to 5 grains every three hours till alkalinity is overcome."

R. C. Schooley, Fayetteville, Mo., says: "Asparagin, lithium benzoate and hyoscyamine make a good combination for acute cystitis. Arbutin is also an excellent alterative diuretic in acute cystitis and nephritis. Water internally is the best diuretic in acute nephritis and digitalin is a good remedy. In either acute cystitis or nephritis rest and bland diet, principally of milk, are indicated. Clean out the *primæ viæ* with calomel and magnesium sulphate at the beginning."

For cystitis Dr. Wm. C. Post directs: (a) Rest, with a capital "R," and this must

be in bed in order to keep the weight of the abdominal contents away from the irritable bladder. Abundance of water to dilute the urine and make it less irritating. This is well combined with alkalis to neutralize acidity. Morphine may be used in suppository (rectal) to allay bladder irritability, but the writer prefers the use of hyoscyamine and gelseminine. If purulent give either salol or arbutin in appropriate dosage, but do not give both together. If a male, use hot rectal enemas repeatedly; if a female, use hot vaginal injection—large ones! If fever be present, combine aconitine with the dominant. If of gonorrheal origin, saturate the patient with calcium sulphide. Large doses of boric acid in solution internally have proved useful. In these cases don't be afraid to use arbutin in connection with the calcium sulphide. Use small doses rapidly repeated to effect saturation. Clear out the bowels well in the beginning with salines, preferably, and continue daily with rochelle salt for choice, but epsom will do. Diet: No condiments or sauces. No alcohol, especially beer. Very little proteid food. In fact the treatment is well summed up with 'recumbent rest, alkalis and anodynes' with plenty of water and low diet.

"(b) Acute nephritis. Look out for suppression of urine and avoid it. If you have it, use hot wet lumbar packs and dry cups. Full hypodermic doses of pilocarpine repeated to effect. If comatose, purgation by elaterium or croton oil. If arterial hypertension is present, use nitroglycerin followed by nitrite of sodium. Don't try to drive the kidney or use irritating balsamic diuretics. Use saline purgatives persistently throughout the course of the disease. If not bothered with dropsy, use plenty of pure water. Be careful of anodynes especially the opiates—use them grudgingly if at all. Hyoscyamine and cicutine are better. If you have dropsy present, use diuretics which will harmonize with the functional ability of the kidney and the tension of the blood-vessels."

**Indications for and Therapeutic Action of Cubebe, Copaiba and Oil of Santol.**—Dr. Wm. C. Post, Maquoketa, Iowa, says: "They are all balsamic resin-

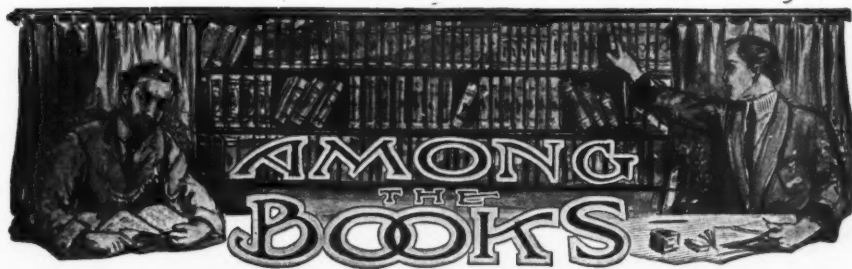
ous diuretics and are indicated in the same class of cases, namely, those which require stimulation of the secretory glands of mucous membrane. All three increase the quantity and to some extent the solid constituents of the urine. Like turpentine they are contraindicated in acute inflammation of the kidney, and in fact in any serious structural impairment of it. Anyway I should hunt further before using either cubebe or santal as a diuretic *per se*. About the only practical use we make of them is to medicate the urine so that as it is excreted it will pass over and bring the remedy in contact with an inflamed urethra, and to me it looks like the old story of the long route that the bad boy took to get even with the minister through infecting the whole family in series with the disease for which these balsamics are commonly used. Copaiba has at times produced remarkable results in cardiac dropsy and ascites, but it cannot be depended upon as its action is very variable. Outside of its diuretic action it is said to be very useful in small doses in chronic bronchitis."

#### EXAMINATION QUESTIONS

1. What is diuretin, how is it made and what are its indications? Give the scientific and common names, derivation and uses of urotropin.
2. Describe one or more conditions in which you would think cantharis is indicated.
3. Tell something of the pharmacology of colchicum. How does it influence the liver, the bowels and nitrogen-excretion? Explain its value in gouty states.
4. Of what value are the alkaline diuretics in Bright's disease, and how do they act?
5. Describe briefly the rationale and technic of diaphoresis in treating a cold. How do you treat this condition medicinally?
6. How do diaphoretics influence febrile states?
7. Define static electricity, current electricity, electromagnetism and electroration.
8. Explain inductive electricity.

#### RESEARCH QUESTIONS

1. Discuss hyperacid states and tell how they may affect the body health. (See Dr. Talbot's article, this issue.)
2. Discuss the nitrites, including glonoin, sodium nitrite and spirit of nitrous ether, explaining their chemistry and mode of action.
3. Tell us about your use of diuretics in rheumatic and gouty cases, citing one experience if possible.
4. Explain the relation of the halogen salts to the physiology of the animal body, on an electrical basis.



#### SARGENT'S "SURGICAL EMERGENCIES"

**Surgical Emergencies.** By Percy Sargent, M. A., M. B., B. C. (Cantab.) F. R. C. S.; of St. Thomas Hospital. London: Henry Frowde. New York: Oxford University Press. 1907. Price \$1.50.

The author naturally reflects the surgical practice of that celebrated hospital and it is this, especially, that makes this little book valuable and reliable. The subjects treated of are: hemorrhage, burns and scalds, fractures, acute infective diseases, injuries of the abdomen, strangulated hernia, respiratory obstruction, acute affections of the urinary system, injuries to neck, chest, nervous system, injuries and diseases of eye and ear.

#### BARUCH'S "HYDROTHERAPY"

**Hydrotherapy: Its Principles and Practice.** A Guide to the Application of Water in Disease, for Students and Practitioners of Medicine, by Simon Baruch, M. D., Columbia University (College of Physicians and Surgeons). Third edition, revised and enlarged, with numerous illustrations. Publishers, Wm. Wood & Company. 1908. Price \$4.00.

Dr. Baruch, in his nearly half-century of practice, has not always been a hydrotherapeutist; he became one in the latter half, after studying and testing hydrotherapy in practice. Now he says of it, conscientiously, that "the comfort and satisfaction which the addition of this agent to his therapeutic resources has afforded him in the amelioration of suffering and saving

of lives warrant him to devote the remaining years of his life to the effort of diffusing a better acquaintance with this neglected therapeutic weapon among his colleagues." This has the honest ring of satisfying, science-devoted, philanthropic medicine. And in return let us say to Dr. Baruch that the profession will now have less difficulty in coming to his conclusion, because we have his book to aid us.

The book contains 537 closely printed pages. It covers the subject well. The Historical Epitome, the Lesson, Necessity for Instruction in Hydrotherapy, add a distinct literary and pedagogic charm to this excellent work.

#### REPORT OF THE PHIPPS INSTITUTE

**Fourth Annual Report of the Henry Phipps Institute for the Study, Treatment and Prevention of Tuberculosis.** February 1, 1906 to February 1, 1907. An account of the general and special clinical and pathological work done by members of the staff at the Institute during the year. Edited by Joseph Walsh, A. M., M. D. Published by the Henry Phipps Institute, 238 Pine St., Philadelphia. 1908.

The fashion of enforcing, pseudoreligiously, optimistic expressions in words and looks at the expense of truth and fact is, perhaps accountable for much of the hope indulged in by some that tuberculosis will be "stamped out." Some of the ultra worshipers of "Mind" may possibly believe that communities, smallest or largest, can be hypnotized and suggested out of tuberculosis. The vanity and vainness of

all such thoughts is so apparent as to relieve one of the necessity of refuting them. If progress has been or really will be made in the good fight against tuberculosis in recent and coming years, statistics honestly collected from impartial sources—and, oh, what volume of meaning in these two words!—will either confirm or negate it. The same is to be said of any remedy, any mode of treatment, any point claimed in etiology, diagnosis and prognosis—statistics from impartial sources will tell. And, thank God, such sources are to be found. One of these is that noble institution named in the title. It is not only a charity to the poor patients it houses and cares for but a benevolence also to the medical profession where honest scientists are given ample opportunity to study for us what help there may be or really is against tuberculosis.

#### EDMUNDS' "GLANDULAR ENLARGEMENT"

Glandular Enlargement, and Other Diseases of the Lymphatic System. By Arthur Edmunds, M. B. Publisher: Henry Frowde, New York, Oxford University Press. 1908. Price \$3.00.

A most desirable book for both the pediatric and general practitioner. The author enters largely into the anatomy of glands and lymphatics in order the better to explain diagnosis and treatment.

#### BENEDICT'S "GOLDEN RULES OF DIETETICS"

Golden Rules of Dietetics. By A. L. Benedict, A. M., M. D., Buffalo. The C. V. Mosby Medical Book and Publishing Company, St. Louis. Price \$3.00.

The book is one of the "Medical Guide and Monograph Series." It embraces "the general principles and empiric knowledge of human nutrition; analytic tables of food-stuffs; diet lists and rules for infant feeding and for feeding in various diseases." For a person who is imbued with the supreme importance of the *materia alimentaria*, both in health and disease, this honest

book which seeks the middle way between theory and practice will be a satisfactory welcome guide to the intricacies and the perplexities of the subject. The appendices, though short, give practical directions for preparing foods, which are very useful.

#### DAVIS'S "CONSUMPTION"

Consumption: How to Prevent It, and How to Live With It. Its Nature, Its Causes, Its Prevention, and the Mode of Life, Climate, Exercise, Food, Clothing Necessary for Its Cure. By N. S. Davis, A. M., M. D., of the Northwestern University Medical School. Second edition, thoroughly revised. F. A. Davis Company, Philadelphia. 1908. Price \$1.00.

Emphasis is meant to be laid on the last clause of the title, "How to Live With It." This is the gain from the study of hygiene, and this is the teaching of this excellent little book, which has to be taught over and over again and learned over and over again, especially when a people are so readily quack-behumbled and nostrum-overflooded as we are. This little book has been reprinted several times since 1891, and is now thoroughly revised for the first time. It has a noble mission. May it prosper!

#### BARDWELL'S "DIET IN TUBERCULOSIS"

Diet in Tuberculosis. Principles and Economics. By N. D. Bardwell, M. D., Medical Superintendent, King Edward VII Sanatorium, and John Ellis Chapman, M. R. C. S., Medical Superintendent, Coppin's Green Sanatorium. Oxford University Press, London and New York. 1908. Price \$1.50.

The studious physician will find in this excellent book of but 180 pages a full discussion and a record of actual practical results obtained by the use of proper diet in consumption among the poor. He also discusses, what is rarely found, the "meat-free diet," its sufficiency and efficiency in such cases. The tables will need special study and recasting into more familiar figures, but it will abundantly repay to do so.





#### PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

## ANSWERS TO QUERIES

ANSWER TO QUERY.—A South Dakota subscriber writes: "In the September number of *CLINICAL MEDICINE*, of this year, on page 1252, you advise the use of lobelin, internally and by injection. Please tell in your November number, how strong a solution you use, how many granules of lobelin to half an ounce of water, how often to inject and how much at the time. How would you give lobelin 'to effect?' For which symptoms to look out, when the effect is reached?"

Lobelia is one of the most potent relaxants we possess, and as is well known, this drug was given by the Thomsonians for its emetocathartic effect. The eclectics use it quite largely today, compound lobelia powder being a favorite prescription. Lobelin is a very active remedy; one to two granules (G. 1-67, or gr. 1-6) dissolved in one-half

dram of water may be injected into the urethra. Prompt relaxation will be noted. Internally lobelin should be pushed until nausea and relaxation (with perhaps moderate sweating) are obtained. Occasionally emesis comes on rapidly. Small doses frequently repeated are diaphoretic, sialagog and sedative. Lobelin is, moreover, an excellent expectorant. In rigid os lobelin should always be thought of; it relaxes the perineum also. However, when the thin knife-edge cervix is encountered gelseminine will prove superior to lobelin, the latter drug being most efficacious when the cervix is thick and doughy.

Lobelin, it must be remembered, should always be given in hot water. A very full and interesting chapter on lobelin and its therapeutic uses will be found in the "Alkaloidal Therapeutics."

## QUERIES

QUERY 5375—"Puerperal Septicemia." J. A. C., Minnesota, has recently had a severe case of puerperal septicemia and desires to know the best method of treatment, "especially the best internal remedies."

Here, if anywhere, the doctor requires a promptly and positively efficient systemic antiseptic. Whether the case be one of true infective septicopyemia, due to invasion by the streptococcus, staphylococcus, gonococcus or other germs; or sapremia from the absorption of decomposing secundines, vigorous local measures, instituted early, may prevent the further absorption of septic

material but cannot greatly lessen the inimical influence of toxins already circulating in the body-fluids. The uterine cavity and vaginal tract should, of course, be thoroughly cleaned out and be kept as nearly sterile as possible by the use of proper antiseptics.

In the cases due to germ-infection, echinacea, calcium sulphide, nuclein and veratrine are the main remedies and, with the exception of a brisk purgative (if the type of infection is mild), may be the only drugs required. The calcium sulphide and echinacea should be pushed to thorough saturation. This is particularly important in

cases of streptococcus infection, which are of the utmost seriousness and demand the most energetic measures if the life is to be saved. Occasionally obstinately dry skin and inactive kidneys will call for pilocarpine in small repeated doses (best given hypodermically), and barosmin, gr. 1-3 hourly for three hours, with a draught of hot barley water. If the *accouchement* has been conducted properly, ordinary elimination will already have been secured and there will be no accumulation of effete material in the body to accentuate the toxemia.

In cases of *abortion* and obstetrical cases with retained secundine (sapremia) the most thorough cleaning out of the uterus and free irrigation with antiseptic solutions will be called for as the initial procedure; but even so, it is well to begin the exhibition of echinacea in very large dosage (2 to 3 grains) the instant the diagnosis is made. Now and again cases will present bearing all the signs of puerperal sepsis, yet abortion be denied and examination refused. In such cases order a purge, hot creolin douches and retirement to bed, giving echinacea, 2 grains hourly; ergotin, gr. 1-3, may be added with advantage. The next day visit the patient and *demand* examination.

In ordinary puerperal infections echinacea, 1 to 2 grains, and calcium sulphide, gr. 1-6, may be given hourly with nuclein, 10 to 20 drops hypodermically twice daily. If this is not feasible, give 10 drops under the tongue three times a day. In severe cases give 20 or 30 minims hypodermically every twelve hours. Use veratrine freely enough to control pulse and temperature—gr. 1-134 every hour or two usually suffices. Daily douches (creolin or bichloride) are necessary. Under this treatment conditions usually rapidly improve and in forty-eight hours the echinacea dosage may be reduced one-half. Macroton, gr. 1-6, ergotin, gr. 1-6, may be given three times daily for a week after the temperature reaches 99°F. and for the remainder of the puerperium, macroton, gr. 1-13, may be given with hydrastin, gr. 1-6, between meals, and the triple arsenates with nuclein after eating.

If the puerperal infection is due to the streptococcus, the rapid onset and virulence of its course will quickly warn the practitioner of the character of the infection, and suggest the use of antistreptococcus serum in addition to the local and general measures already described. Whenever possible, bacteriological examination of such cases should be made at once, and if a streptococcus infection, use the serum as early as possible.

QUERY 5376. — "Postpartum Convulsions." J. H. C., Ohio, reports the following case: "Primipara, age 17, duration of labor nine hours. Face presentation, chin anterior; bowels and kidneys acted fully four hours prior to birth of child. Labor not severe. Secundines all came away without any trouble. Half an hour after completion of labor, without the slightest warning, she went into a severe convulsion. Fifteen minutes later there was a second convulsion. Pulse slow (72) and full; skin moist, temperature normal. I gave bromidia, 1 dram, and a hypodermic of veratrum viride. Drew urine (over one pint); no albumin in it; looked normal in color. One and three-quarters of an hour later a third convulsion occurred. I gave the hyoscine-morphine combination. No further trouble. Patient recovering nicely. Patient has always been a strong, healthy girl; no "spells" nor convulsions. This was not a hysterical attack. Patient was not a particle nervous. Made no fuss nor complaint at any time during labor. No headache; no dimness of vision; no pain in stomach. Not one solitary symptom indicating the least disturbance or premonition. Not five minutes before the last convulsion she smelled dinner cooking and said she was hungry as she had eaten no breakfast. What did this mean?"

Occasionally such convulsions occur from the pronounced relaxation which naturally follows the emptying of the uterus. We have not, of course, a sufficiently clear conception of conditions generally to offer any really valuable suggestions. The absence of albumin, the presumably normal labor, lack of hemorrhage, laceration or anything of that kind leads us to believe that the only

explanation is that above given. Had we a better idea of the nature of the convulsion, condition of pupils during attack, posture, and so forth, we might possibly venture further suggestions.

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QUERY 5377.—“Ataxia.” F. C. M., New Hampshire, has a case of ataxia in the primary stage. The patient has occasional sharp pains in different places but less frequently than a month ago. She is 38, married and was never pregnant. History negative. General health good, and she does her housework mostly alone. The present treatment is lecithin, and massage with vibration. She was on 1-4 grain silver nitrate three times daily, for a few weeks. We are asked to suggest as to the advisability of continuing the lecithin or changing to iron, quinine and strychnine arsenates, combined with nuclein. The doctor has “always found it hard to make these cases respond to any treatment” (as no doubt the majority have) and as this case has been under the care of several doctors (the trouble having begun over a year ago) he fears that he may fail also. This woman has great difficulty in standing with the feet together and eyes closed, and occasionally falls. There is quite a bit of anesthesia below the knee, and the knee-jerk is absent.

We regret that the doctor does not give us a clearer idea of the clinical conditions in this case of ataxia. Methylene-blue has given very good results and may be combined with lecithin and small doses of strychnine and phosphorus. Elimination is always essential in these cases. We have found a combination of iridin, gr. 1-6, podophyllotoxin, gr. 1-12 and the bile salts every hour for three doses every other night with a saline the next morning very satisfactory. If there is any specific taint, push mercury protoiodide, stillingin, and the three arsenates, with nuclein. Lecithin may be given for a month at a time with the arsenates. It is then wise to drop the remedy for a week, substituting bovine for a time. Don't forget the extreme benefit which has been obtained by the use of the high-frequency current.

We should not continue the silver nitrate, but should be inclined to apply fly-blisters along the spinal column, beginning at the nape of the neck, and place one every four or five days at three-inch intervals on opposite sides of the spine till the sacrum is reached. Canthos is an ideal cantharides plaster. You may of course use the regular emplastrum cantharidis, but it is much more painful. Be very sure about the syphilitic condition. Have the urine examined and note “tone” of sphincter. See also if there is any intrapelvic growth.

Since the foregoing was put in type a Philadelphia surgeon claims to have absolutely cured thirty cases of locomotor ataxia by remedying or removing certain lesions in the genitourinary tract, claiming that the continued local irritation underlay the spinal disorder.

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QUERY 5378.—“Alopecia Areata. Gonorrheal Complication.” J. F. H., Texas, desires treatment for a patient, 33 years old, a very strong single man. “Had gonorrhea four years ago; two months after he developed rheumatism and never has gotten entirely rid of it, but is a great deal better. Had stricture, but seems to be entirely well of that. Appetite is good, digestion also. His grandfather died with consumption. No scrofula or cancer in the family. Now his hair is coming out in spots, about the size of a silver half-dollar, leaving the skin perfectly smooth. All the hair will come out at once. No pain, no itching, no sore. The first came out about two years ago. No appearance on the body. Just the beard and hair on the head affected.”

You have alopecia areata to deal with here and, probably, general infection (gonococcal). This man's urine should be examined, the prostate should be milked and the discharge examined microscopically for gonococci. Are you quite positive that there is no luetic taint here. An acute urethritis sometimes masks the initial lesion of syphilis. Alopecia areata presents in just the form you describe and it is a question whether you have to deal with a purely local condition or a systemic taint. It might be well to sub-

mit to an expert a few of the diseased hairs together with a scraping from the scalp so that he can recognize the character of the germ, should it exist. Place scraping on a glass slide, cover with another glass and see the edges are firmly united with gummed paper.

Here is a line of treatment based on general principles: Wash the head and skin of the face thoroughly morning and night with a germicidal soap. Then apply this mixture: Tincture of cantharides, 2 fluid drams; resorcin, 2 drams; glycerin, 1 fluid ounce; rose water, q. s. to make 8 fluid ounces. Apply an hour or so after washing; rub in quite thoroughly and freely. Or you may try: mercury bichloride, 2 grains; resorcin, 5 drams; boric acid, 5 drams; glycerin, 4 fluid ounces; alcohol, sufficient. Apply at night, rubbing it into the bald spots only. Internally we should give this man a rheumatic combination consisting of small doses of salicylic acid, calx iodata, colchicine, bryonin, macrotin, boldine and oil of wintergreen; also, arsenic sulphide, gr. 1-67, leptandrin, gr. 1-6, half an hour after eating, and a saline laxative upon rising every other morning. Try out this treatment thoroughly. Should it not prove effective give us the further information desired and we shall be pleased to suggest more definitely.

QUERY 5379.—“Pemphigus?” R. W. S., Texas, describes a most interesting case and asks suggestions. “Mrs. S. M., aged 20, ancestral history negative. February 27, 1908, threw a box-elder stick of wood and scratched a small place on the prominence of the thumb. A gangrenous ulcer appeared. I used bichloride wash; and a week later it had nearly healed. The medicine gave out, and during the next two or three days the ulcer spread and deepened. March 14 the ulcer, filled with dry gangrenous material; was curetted; was very sensitive. after two months’ treatment with camphophenique and yellow oxide of mercury ointment (alternating daily) and potassium iodide with an occasional purge the ulcer healed and was, to all appearance, cured, remaining so until July 26, on which day she hit the thumb against a chair, when a

clear blister came up in two or three hours, and a few hours later there was an ulcer, black and to all appearances just the same as the first one. The next day there were seven more reaching to the wrist. The next day there were seven additional reaching to near the elbow. On Monday, August 3, the ulcers had appeared up to the shoulder, dotted all about over the arm and forearm, and now have begun to appear on the chest. Treatment, 15 grains of potassium iodide three times a day, and an occasional purge. What is it and what is the treatment? All ulcers first appear as a small clear blister and in three or four hours have reached the size of a dime, with sunken black center.”

This case presents many peculiar characteristics and may or may not prove to be pemphigus. Is it possible there is any luetic taint and has there been any prior systemic toxemia (purpureal or otherwise)? Where was the first ulcer located, on the site of scratch upon thumb? Do we understand that the “clear blister” which arose after the thumb was struck the second time appeared on the site of the former ulcer? What about the temperature? Is there any pain? Better examine the urine thoroughly, or have it done. What is the process of healing? Does the scar remain? If so, is the cicatrix sunken or level with the adjacent skin? Do these ulcers follow the course of a nerve? This may be a trophoneurosis. Suppose you read up on pemphigus and compare the symptoms described with those present in your patient.

For treatment, we should cleanse each broken blister with peroxide of hydrogen, dry, touch the area with oil of turpentine (pure) and then dress with bismuth-formic iodide, some borated antiseptic, dolomol-ichthyol or any good nonirritating desiccant powder. As soon as one of the blisters begins to appear, snip it, inject a minim or so of carbolic acid and in a minute neutralize with strong alcohol, then treat as above. Internally push echinacea, calcium sulphide and iridin, in full doses every three hours. Clean out the bowels with blue mass and soda and podophyllin every other night.

A saline draught the next morning on rising; xanthoxilin, rumicin and stillingin, gr. 1-3 each before meals; arsenic iodide, gr. 1-67 after meals. Let us know how this treatment works out and give us the further information desired.

QUERY 5380.—“A Persistent Gleet.” P. H. W., Pennsylvania, is treating a young man, age 26, single, with good history, no bad habits, who contracted gonorrhea four years ago and was treated for the same. The doctor at the time used an injection which caused swelling of his testicles and confined the patient to the bed for three weeks. He was treated with bougies, sounds of various sizes, without any relief, for three years, and now everything is normal with the exception of a “leakage” which is of a dirty-white color and acid reaction. Urine is acid. Patient has no pain, but this secretion is a bother to him. The urine shows no gonococci or any other bacteria. The doctor asks, what would be our treatment?

Before we can prescribe, Doctor, we must know whether this is simply an infiltrative catarrh or a chronic gonorrhea, prostatitis, or cowperitis. Examine this patient per rectum and pass sounds into the deep urethra, noting any tender spot which may exist. There may be an erosion in the prostatic or membranous portion of the canal. These cases are very stubborn and unless we know just what the pathological condition is we cannot advise intelligently.

Potassium permanganate injections, irrigations with ichthyol or ichthargan solution by the Janet method and once a week swabbing of the posterior urethra with a 5-percent silver nitrate solution often proves effective. Dilation is sometimes essential. If there is prostatic involvement the glands must be massaged and treatment by suppositories instituted. (See Dr. Candler's article on “Prostatitis” in a recent issue of CLINICAL MEDICINE.) It might be well for you to secure urine—taken by the “two-glass method”—for examination, also some of the prostatic fluid and discharge from the urethra; make a smear upon a glass slide,

dry and cover; any good pathologist will discover the true character of secretions. As soon as we have a clear idea of conditions, Doctor, we shall be more than pleased to suggest further.

QUERY 5381.—“Thiosinamin.” F. D., Massachusetts, asks for any information we can give on the work done by thiosinamin or to be referred to any article written in any journal upon the subject.

In Merck's hand-book thiosinamin is described as follows: “A colorless crystal; faint garlic odor; bitter taste. Soluble in water, alcohol, ether. Resolvent. Uses: Internal or hypodermic in stricture, corneal opacity, chronic deafness; external, in lupus, chronic glandular tumors, cicatrices. Dose: 1-2 grain gradually increased to 1 1-2 grains twice daily, in capsules or dilute alcohol. Injection (parenchymatous or subcutaneous): 1-2 grain, in glycerino-aqueous solution, every three days.”

We have found thiosinamin of great value in a great variety of cases and it is an ingredient of a stricture bougie which we use largely. We suggest that you write Merck and ask for full literature. There is a long article on the use of thiosinamin in the treatment of deafness in volume 4 of “International Clinics,” page 283. Fibrolysin, a derived preparation, has the drawback of rapidly decomposing on contact with air or light. Thiosinamin is more readily dissolved when a little antipyrin is added to the water. For instance, thiosinamin 15, antipyrin 7 1-2, distilled water 100. This makes a 15-percent solution and may be injected without causing irritation or pain. Bear in mind that hypodermic injections are more effective than local applications. Thiosinamin may be regarded as a safe and effective remedial agent.

QUERY 5382.—“Cerebrospinal Meningitis: A Puzzling Case.” J. L. S., Virginia, reports a most interesting (and unfortunately fatal) case, asking for a diagnosis. His letter is reproduced in full and comments upon it (and our reply) are requested.



"I want light and you have never yet turned me down or failed me when I have come to you, so I hope you will not do so now. I was called August 1 to see a child, boy, three years old, suffering, as I thought, from simple indigestion. The child had vomited, complained of headache, no appetite, tongue coated, etc. I prescribed calomel with aromatics, ten tablets to be taken every half hour, followed by saline laxative two hours after last dose. Called again next day and found temperature 101° F., pulse 140, stools frequent, offensive and streaked with blood and mucus, pain and tenesmus when the bowels moved. Diagnosed acute ileocolitis. Directed the intestinal tract to be cleaned out as before with calomel, gr. 1-10 for ten doses followed by salines. Dissolved one tablespoonful of effervescent magnesium sulphate in half a glass of water (sweetened) and directed that a tablespoonful of the solution be given every hour till the bowels were thoroughly moved, the solution to be continued in tablespoonful doses every two hours, adding to each dose 10 drops of camphorated tincture of opium. I dissolved also eight tablets of the compound sulphocarbolates in sixteen teaspoonfuls of water and directed a teaspoonful every two hours. Repeated the calomel about every third day. Locally, for the pain and tenesmus, directed hot fomentations over the abdomen and enemas of hot normal salt solution. Later gave hot enemas containing silver nitrate, one grain to the half pint. Diet, egg albumen in cool water, rice water with plenty of cold water to drink. Under this treatment the blood disappeared from the stools, which lost their fetor, pain and tenesmus grew less and the general condition greatly improved. I thought the child well on the way to recovery.

"I did not see the case again for three days, when I was called to come at once, as the child was worse. I found the child in a state of high nervous excitement, head tossing from side to side with tendency to opisthotonos, pupils widely and regularly dilated, muscles of the face contracted and jaws rigid, respiration sighing and gasping,

temperature 102° F., pulse 150, constant straining as at stool, tongue and breath foul, stools green and offensive. On inquiry I learned that a passing physician, a relative, had been called in and that my treatment had been discontinued and his substituted. I immediately resumed treatment as originally instituted; but from that time the course of the disease was steadily downward. After thirty-six hours nausea (gagging) developed, with a peculiar brightness of the eyes. To sedate the stomach, mustard was applied over the epigastrium and over the vagus. A sedative was also exhibited with but temporary benefit. Finally, atropine was tried; gr. 1-1000 every fifteen minutes till face flushed. The sulphocarbolates were given in five-grain doses and the bowels kept open with daily doses of saline laxative. A consultant was called who suggested papain to quiet nervousness and acetozone alternated with the sulphocarbolates. High hot enemas, twenty grains of sulphocarbolate of zinc to the pint, were given three times a day. For the papain the specific tincture of gelsemium in four-drop doses every thirty minutes to effect was afterward substituted. But all availed nothing. In spite of everything we could do the child died on the sixteenth day.

"Now, tell me wherein the treatment failed? How would you have treated the case? If this child could have been saved I want to know how. A child two years old in the practice of a neighbor practitioner died from the same disease (and was affected in identically the same manner) after an illness of seven days. A part of his treatment was Dover's powder every four hours.

"To what was the development of the nervous phenomena in these cases due? I have consulted the 'authorities,' and find no mention of complications of nervous origin in connection with ileocolitis. Neither do I find mention of the matter in the 'Text Book of Alkaloidal Practice,' nor in Candler's 'Every-Day Diseases of Children,' both of which I value highly and consult oftener and with more confidence than all the other authorities I possess. How to prevent the development and to

combat the nervous symptoms in these cases is what I want to know. This is a genuine Macedonian cry for help. I don't want any more fatalities of this sort to occur in my practice if it is possible to prevent them."

We cannot believe that this was anything but a true case of cerebrospinal meningitis though the congestion of the abdominal organs, with possibly more or less diffuse peritonitis, might have led to a different conclusion. The fact that there was another case of meningitis in the neighborhood, the bright eyes, high temperature, opisthotonos and fatal ending, all these point to a cerebrospinal meningitis—nonfulminant variety. †

First let us suggest that you read again, and very carefully, the article on this disease in the "Every-Day Diseases of Children." The treatment therein outlined is not theoretical but thoroughly practical, and the author has "won out" in several desperate cases by adhering to the therapeutic measures he describes. We note with great pleasure your high opinion of this book and of the "Practice" and feel sure that after a rereading of the chapter on cerebrospinal meningitis the whole case will be plain to you. Ileocolitis undoubtedly rendered the child an easy prey to the secondary affection, in fact you may consider that you controlled the first disorder but had to deal with an entirely separate pathological condition when called the second time. Papain was a waste of time, while cicutine would have been infinitely preferable to gelsemium. It is a pity you did not look for Kernig's sign, and the moment you had opisthotonos it would have been well to have done a lumbar puncture; the meningococcus would probably have been discovered.

The one thing which would be likely to lead you astray in this particular case was the purging. Remember that you had already to deal with an intestinal infection and naturally the earlier symptoms were accentuated when the inhibitory apparatus of the body was paralyzed by the meningococci. It is for this reason that you failed to find in the authorities a similar clinical

picture. Total emptying of the bowel, rectal nutrition and the therapeutic measures advocated by Candler in his chapter on meningitis might have saved the child, but it would be hard to imagine a more distressing pathological condition than you had to deal with and despite the most perfect treatment and watchful measures the child might have succumbed. A post-mortem would have been instructive and we regret extremely it was not made. We congratulate you upon your very clear presentation of the case.

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QUERY 5383.—"Atrophia Unguis." H. F. C., Massachusetts, describes an interesting case as follows: "Miss R., about twelve years ago rocked on one of her fingers, after which the nail came off. Then the new nail became only a stub, ridged and dry. This condition spread to all the fingers and now she must keep them wrapped in lanolin each night or they become so dry and crack so that she cannot endure it. She has to go to bed each day after her school closes and stay there the rest of the afternoon if she is to keep her strength so that she can teach. Her vacations must be complete rest. Her habits are regular, bowels and kidneys regular and in good order. She is very nervous, recently (and once before for a short time) she finds on waking in the morning that she cannot move her body or limbs for a few moments, but that soon passes off. She keeps her spirits well, though she is so nervous and sleeps poorly. She has been to all sorts of doctors, but the only diagnosis she has been given is "crumbling nails." Is this merely a local disease with a nervous, run-down condition or a local effect of a disease?"

We note the peculiar systemic derangement existing in this case of atrophie unguis. From the history one would be apt to consider the atrophy a purely local disorder (there having been no sign of trouble prior to the crushing of digit?) but, as a matter of fact the injury of one finger would not cause atrophy of all the nails, nor would the symptoms described follow a simple lesion of the extremity. We must therefore look

for a constitutional taint and regard the injury as the "breeze which started the flames from a smouldering fire." Dystrophic disorders of this kind are frequently noted in persons with a tendency to mental or nervous instability. In this particular instance it would be well to investigate the family history and prior health of the girl herself.

Periungual inflammation, in many cases may be controlled by the use of hydrogen peroxide, following the application with a boric-acid solution, drying and painting part with a strong solution of largin or ichthargan. Or you may use compound tincture of benzoin. Examine the patient very carefully; test reflexes; have urine tested (send to the laboratory four ounces from twenty-four-hour output, stating full amount voided) and note the number and character of stools. Is there any anemia in this case? How about bone development? It is important to get beneath the surface and to arrive at the essential cause, if possible. Put the patient for the present on the arsenates of iron, quinine and strychnine with nuclein and push calcium lactophosphate, giving two granules every three hours. Lecithin should also be given between meals and in properly selected cases iridin, gr. 1-6, xanthoxylin, gr. 1-6, will also be found of decided advantage.

Treating in this manner I am confident that you will have no difficulty in bringing this and similar cases under control. If you fail it will be because you have missed some point essential to its thorough understanding.

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 QUERY 5384.—"Sterility Due to Cervical Erosion; Cervicitis?" O. H. S., Indiana, describes a case as follows, asking suggestions and treatment: "Lady, 25 years old, married, no children, no abortions, has had some pains in left side over the ovary; menses every three weeks which last too long. Painful intercourse. An heir desired. I made a digital examination and could detect some enlargement of uterus and at the edge of the

cervix discovered some little protrusion or elevation and great tenderness to touch. I then used speculum and could see this formation which had the appearance of an erosion. Some mucus around it and in the mouth of the womb.

"I have been making local application to this place and the cervical canal with tincture of iodine, and there is this peculiarity: I can color the whole exposed surface of the womb with the iodine except this one place that I have tried to describe. Have used six treatments of the iodine and today I used 10-per-cent solution of silver nitrate. Woman is quite nervous but her general health is very good.

"From my poor description do you apprehend any malignant growth? Would be glad to have your advice. This is asking considerable, I know, as you should see the condition in order to make a proper diagnosis."

It is, as you say, a little difficult for us to prescribe positively without a clearer conception of conditions. We would suggest, however, Doctor, that you first of all have the semen of the husband examined, the sterility may lie on that side of the house. Dilate very gradually but thoroughly the cervical canal. Apply, after giving a very hot douche (adding one dram of an astringent antiseptic powder to the quart of hot water), a glycomagnesium-suppository. Repeat this procedure every second night. To the cervical canal apply thymol iodide in oily solution, on a cotton-wrapped probe. We suspect catarrh and perhaps ulceration of the cervical mucosa, and it may be necessary to use the copper electrode (negative pole) and galvanic current. These are the only suggestions we can make at the present time, but if this treatment does not prove satisfactory and you will make a more thorough examination and report again we shall be pleased to serve you further. It is not probable that a malignant growth exists but erosions are evident. You can never be *sure*, however, just what you have to deal with in such cases until the pathologist has made his report.



**CACTUS.**—Weak, irregular pulse, rapid, nervous—cactus.—Howe.

**ASTHMA.**—The treatment by iodides appears best for the need to breathe.—Laura.

**CAPSICUM.**—Pulse small and weak, lips pale, extremities and skin cool—capsicum.—Howes.

**THE ALCOHOLIC** is a trained criminal through paralysis of the higher mental faculties.—G. Frank Lydston.

**OPTIMISM.**—"Somebody believes in me" has saved more men from the pit than all the distrust and spying.

**ACONITE.**—A small, fast pulse, skin hot and dry, with fever, call for aconite: small, frequent doses.—Howes.

**ASCLEPIAS.**—Fever, moist skin, sharp pain worsened by motion, pulse strong and vibrant—asclepias.—Howes.

**ARSENIC.**—Weak, soft, compressible pulse, dead, inelastic skin, cool areas and legs—arsenic.—Howes, *Jour. Ther. & Diet.*

**RHUS TOX.**—Small, quick, sharp pulse, restlessness marked, tongue red with projecting papillæ—rhus tox.—Howes.

**SALOON-PROFITS.**—Misapplied charity to the pauper inebriate goes into the pocket of the saloon-keeper.—L. D. Mason.

**AORTIC STENOSIS OR REGURGITATION.**—Huchard and Gubbs proved the efficacy of morphine hypodermically (palliative).

**MORPHINE.**—In all cases where morphine is indicated as a sedative the hydrobromide is the best of its salts.—Laura.

**ALCOHOL** as a beverage or a remedy is most disastrous in perpetuating existing pathological conditions.—J. M. Aikin.

**QUININE** will cure malaria only when indicated, and at no other time; so with ipecac, gelsemium bryonia, aconite, rhus tox.—L. C. Phillips, *Medical World*.

**EPILEPSY.**—Keep the bowels free and the intestinal tract aseptic by the use of some anti-fermentative.—Polk, *Medical Record*.

**ALCOHOL HABIT.**—All obscure diseases of the brain and nervous system may have their origin in a secret alcohol habit.—L. Helleletter.

**PESSIMISM.**—Surround a man with an atmosphere of pessimism and distrust, and it is merely a question of time when he will justify it.

**ALCOHOL.**—The temperance movement in the South is based on fear of the peril to life and property from the free sale of alcohol.—H. O. Marcy.

**MORPHINE.**—Never forget that morphine acts differently upon individuals, according to circumstances that are not always manifest.—Laura.

**VERATRINE IN EPILEPSY.**—No remedy promises as much in epilepsy as veratrine, the most powerful of all elimination-accelerators. Push to full effect.

**ACONITINE.**—The introduction of aconitine by the hypodermic way is very painful.—Van Renterghem.

**EPILEPSY.**—Polk (*Medical Record*) has failed to find any treatment advocated for epilepsy that has not been condemned by other equally high authorities.

**MORPHINE HYDRIODIDE** is especially advisable in scrofulous inflammations, especially of the eyes, with photophobia. Hyoscyamine should be added.—Laura.

**DRINK CRAZE.**—The drink craze is reproduced and kept alive by ferments and metabolic changes in the stomach; whatever the first cause.—G. H. Benton.

**ASTHMA.**—C. M. LINDLEY (*Medical World*) reports his wife's asthma relieved by increasing the deficient action of her kidneys. A part of an important truth.

**EPILEPSY.**—Such remedies as ammonia, oenanthe crocata, cicuta, cuprum and belladonna give the best results; but always elimination of the toxins, present in great quantities.—O. T. Miller, *Medical World*.

**HOT SPRINGS.**—The U. S. Government Report on Hot Springs, Arkansas, says that the water loses its efficiency when cooled and does not regain it when reheated.

**ALCOHOL.**—All the most advanced studies in the etiology of neurotic diseases make alcohol more prominent; the greatest after syphilis as a causative factor.—D. H. Brower.

**TUBERCULOSIS.**—Maher (*Med. Record*) shows that the Indians of New England were probably affected by tuberculosis irrespective of that contracted from the whites.

**PHOSPHORIC ACID** and strychnine are excellent therapeutic measures not only in the period of debut of fevers (especially infectious) but in all the graver periods.—Laura.

**MENSTRUAL HEADACHE** is effectually relieved by gelseminine gr. 1-250, anemonin gr. 1-134 and cicutine hydrobromide gr. 1-67, given together every fifteen minutes till well.

**NIGHT WORKING.**—Much mediocre working and thinking, far too common, are due to the useless custom of prolonging the working day well into the night.—*Chicago Clinic*.

**WEAK HEART.**—Laura proposed caffeine, digitalin and strychnine in all causes of non-compensation with heart-impulse feeble and rapid, pulse feeble, intermitting and irregular.

**SULPHUR WATERS** are condemned in tuberculosis, by some, as likely to induce hemoptysis, says *The Chicago Clinic*; but this is counteracted by lime if calx sulphurata be employed.

**SUMMER DIARRHEA.**—As soon as the diarrhea is under control increase the child's diet cautiously and put it on pepsin and minute doses of strychnine.—D. A. Summers, *Med. World*.

**UNDEVELOPED RESOURCES.**—The greatest opportunity open to youth is the development of our agricultural and other natural resources. The job here awaits the man who can fill it.

**MORPHINE HYDROBROMIDE.**—The ordinary morphine hydrobromide of commerce is impure; whether it is presented in white crystals or in a powder, crystalline, yellowish or grayish.—Laura.

**DIGESTIVE HEADACHE.**—Very severe headache from indigestion, without fever or quick pulse, may be relieved by calomel, gr. 1-6, and veratrine, gr. 1-134, every half hour till better. Follow with saline.

**MOSQUITO.**—The expression "winged snake," employed by Herodotus, is particularly applicable to the mosquito and the result of its bite on the human organism.—Beauperthug, in 1853. *Chicago Clinic*.

**MORPHINE DOSAGE.**—In acute or subacute cases the dosage of morphine is a granule, gr. 1-67 every half hour until its calmant effect is secured. In

mild and chronic forms lessen the doses.—Burg-graevé.

**ASTHMA.**—For the paroxysm, amyl nitrite is the speediest and most evanescent; sodium nitrite is slower but more enduring; glonoin midway in both respects. The action of all three is otherwise identical.

**TUBERCULOSIS.**—The investigation made by Dr. Maher shows that in Connecticut tuberculosis infects houses and occurs especially in badly drained places and houses with wet cellars.—*Medical Record*.

**SULPHIDE SATURATION.**—In the valuable paper on sulphur water in *The Chicago Clinic* the central point is ignored—the effect of sulphide saturation on maladies caused by microorganisms. A lamentable lapsus.

**RESPECT ONE ANOTHER.**—In our studies we have no other guide than our complete dependence of every man and every school, without ever departing from the respect due to every conscientious worker.—Laura.

**PAPAYOTIN.**—The digestive principle of the papaw, papayotin, has been employed with success as a solvent of croupous and diphtheritic membranes. *Red Cross Notes* now tells us that it destroys the toxin also.

**VIVISECTION.**—*The Medical Record* analyzes a list of 162 physicians published as opposing vivisection; the conclusion being that such opposition is pretty good evidence of said physicians' defects in modern scientific attainments.

**ASTHMA.**—Ether hypodermics may answer. The reader knows the energy and the danger of amyl nitrite and nitroglycerin. Pyridin may be of service. To combat the paroxysm preference is given of late to sodium nitrite.—Laura.

**ALCOHOL.**—Laboratory research work from every point of view confirms the statement that alcohol is a paralyzant, and its action on the cells and tissues is corroding and destructive, both chemically and physiologically.—W. S. Hall.

**NICOTINE.**—*The Lancet* says that the inhalation of tobacco smoke increases the absorption of nicotine, weakens the sense of smell, and increases the peril of microbic infection. Hay-fever was apparently disseminated in this manner.

**CALCIUM SULPHIDE.**—A belief never proved erroneous and upheld by clinical evidence is that when the tissues become saturated with hydrogen sulphide, there is a solution of metallic albuminates and elimination of mercuric molecules through the liver and urine.—*Chicago Clinic*.

**DEATH OF DR. BUCKLEY.**—We have just heard of the death of Dr. W. C. Buckley, of Philadelphia, the well-known originator of Buckley's Uterine Tonic and other useful preparations widely used by thousands of the profession. Next month we expect to have an extended sketch of his life.